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RESEARCH IN RETROSPECT--ADMINISTRATIVE MEMORANDA OF THE DENVER-STANFORD RESEARCH PROJECT.

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MEMORANDUMS ARE PROVIDED ON THE ADMINISTRATIVE ASPECTS OF THE JOINT PROJECT OF THE DENVER PUBLIC SCHOOLS AND STANFORD UNIVERSITY, TITLED "FOUR YEARS OF RESEARCH ON THE CONTEXT OF INSTRUCTIONAL TELEVISION." THE PURPOSE OF THIS PROJECT WAS TO LEARN HOW INSTRUCTIONAL TELEVISION COULD BEST FIT INTO THE TOTAL TEACHING SITUATION, NOT TO DETERMINE THE EFFECTIVENESS OF EDUCATIONAL TV. THE TEACHING FIELD SELECTED FOR EXPERIMENTATION WAS ELEMENTARY SCHOOL SPANISH FOR FIFTH AND SIXTH GRADERS. A FINAL REPORT PRESENTED THE GENERAL FINDINGS OF THE OVERALL PROJECT. THE PRESENT REPORT WAS PREPARED NOT TO DUPLICATE AND SUMMARIZE THE FINAL DOCUMENT BUT TO PROVIDE SCHOOL ADMINISTRATORS AND OTHER RESPONSIBLE GROUPS WITH A COMPREHENSIVE TEXT ON--(1) HOW THE PROJECT WAS PLANNED AND INSTITUTED, (2) HOW IT ACTUALLY OPERATED, (3) WHAT PROBLEMS WERE ENCOUNTERED AND HOW THEY WERE OVERCOME, (4) WHAT EFFECT IT HAD ON THE TEACHING CORPS, PRINCIPALS, AND PARENTS, AND (5) WHAT THE LONG-TERM IMPLICATIONS ARE. ADMINISTRATIVE PROCEDURES ARE THUS REPORTED THAT WOULD NOT NORMALLY BE INCLUDED ELSEWHERE. THE "WHY" AND "WITH WHAT RESULTS" ARE COVERED EXTENSIVELY IN MORE TECHNICAL REPORTS WHICH CAN BE OBTAINED FROM EITHER THE U.S. OFFICE OF EDUCATION OR THE INSTITUTE FOR COMMUNICATION RESEARCH AT STANFORD UNIVERSITY. (JH)

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RESEARCH ON THE CONTEXT OF INSTRUCTIONAL TELEVISION

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by

John L. Hayman, Jr.
James T. Johnson, Jr.

DENVER-STANFORD PROJECT
ON THE CONTEXT OF INSTRUCTIONAL TELEVISION

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School District Number One
City and County of Denver
Denver, Colorado

Institute for Communication Research
Stanford University
Stanford, California

Report Number 11
June 1964

FOREWARD

Many groups must be considered when the results of a large-scale joint research effort, such as the Denver Public Schools-Stanford University instructional television project, are reported. To mention a few, there are researchers who examine the report in terms of research design, statistical treatment, levels of significance, and the like; there are those whose primary interest is television itself and who look for clues as to how television compares with traditional classroom instruction, how the lessons were prepared and produced, and how the media can best be used; curriculum people will want to know what the subject field was, why it was selected, how content was developed, what the outcomes were and how they were evaluated; teachers will ask many of the aforementioned questions but will also want to know about such things as motivation, interest, and follow-up.

An extremely large and influential group, the school administrators, are frequently overlooked in such reporting, and it is primarily for them that this report is being written. This is not to imply that administrators don't have a general interest in all that has been mentioned, but the questions of most immediate concern to them are seldom answered. Administrators want to know how a project was instituted; how it actually operated, what problems were encountered and how they were overcome; what effect it had on the teaching corps, principals, and parents; and what the long term implications are.

For those who have not heard of the project, some general information is probably in order. The project, titled "Four Years of Research on the Context of Instructional Television," was a joint effort of the Denver Public Schools and Stanford University's Institute for Communication Research, and it was financed primarily by a grant from the U.S. Office of Education under conditions of Title VII of the National Defense Education Act. As the title indicates, the project was not concerned with determining the effectiveness of TV per se. As early as 1959 when the proposal was submitted, a substantial amount of research had already established that television was a very effective teaching medium. The purpose of the research was to learn how instructional television could best fit into the total teaching situation.

The field of teaching selected, elementary school Spanish, was just coming into local and national prominence and seemed to be a natural for television instruction. There was at that time, and still is, a shortage of classroom teachers qualified to teach the subject. Also, television's flexibility seemed especially effective in the presentation of a foreign language to youngsters in the audio-lingual manner.

In general, the results show clearly that, although television alone is a valuable teaching tool, it is a much more potent one when it is reinforced with other elements of the total teaching-learning context. The individualizing of instruction that a classroom teacher can provide after the basic teaching has been provided by the TV teacher seems to be extremely important. This was also true for teaching machines or programed instruction, record players, tape recorders, and other of the newer media--that is, a carefully chosen combination of teaching devices was better than any device used singly. Finally, there is ample evidence to show that fifth and sixth graders can learn a foreign language quite easily, can produce the sound patterns and intonations without great difficulty, and seem to enjoy the experience.

Progress reports have been distributed, articles have been published in periodicals, papers dealing with the specific aspects of the project have been presented at conventions, and a final report that presents the general findings of the entire four years is now available. Therefore, this report will not attempt to duplicate, summarize, or replace any of these. It is hoped, as indicated earlier, that these memoranda will throw some light on the administrative aspects of the project, and will deal with the "how" of the project in such a way that will be of practical assistance to the school administrator.

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RESEARCH IN RETROSPECT:
ADMINISTRATIVE MEMORANDA OF THE DENVER-STANFORD RESEARCH PROJECT

by

John L. Hayman, Jr.
James T. Johnson, Jr.

The Denver Public Schools and Stanford University's Institute for Communication Research are currently engaged in a joint research project on the context of instructional television. The purpose of the project is to learn how instructional television can best fit into the total teaching situation. A substantial amount of research has established that television is a very effective teaching medium. Ways of combining it with other educational activities must now be considered, and the Denver-Stanford project is a beginning effort in this direction. Kenneth E. Oberholtzer is principal investigator for the Denver Public Schools and Wilbur Schramm is principal investigator for Stanford University. This is one of a number of project progress reports.

I. DESIGNING AND LAUNCHING THE PROJECT

The advantages of combining the resources of a university and a school system to solve educational problems have long been recognized. Yet, it is interesting to note how infrequently such a joint effort is accomplished, especially when both institutions are large.

Any truly joint effort means that both parties automatically lose some of their autonomy. Thus, since institutions, like individuals, value their independence, it is natural to expect some hesitancy on the part of potential partners in a joint project to commit themselves, and achieving commitment is, itself, an involved process.

The first step, of course, is to introduce the potential partners and allow them to become acquainted with each other. In the case of the Denver Schools, headed by Kenneth Oberholtzer, and Stanford's Institute for Communication Research, directed by Wilbur Schramm, this introduction had its genesis at a meeting sponsored by the National Educational Television and Radio Center. At this meeting, the research needs of educational or instructional television were discussed. Howard Johnson, then Executive Director of Denver's educational television station and since appointed Assistant Superintendent, and Wilbur Schramm of Stanford had a chance to get acquainted and find that many of their interests and ideas were quite similar.

At a subsequent meeting, arranged by NET, Dr. Schramm met with interested school districts to discuss the possibilities of a large-scale joint research effort involving Stanford and one or more of the districts attending. As a result of this meeting, attended by Dr. Oberholtzer and some of his top aides, subsequent meetings were arranged and the Denver-Stanford project was conceived.

As the research proposal was discussed, written, revised, and rewritten, each Denver representative gained new insight into the reasons for the strictly controlled conditions of well-planned field research.

Those from the Institute saw the problems of the school administrator in balancing the requirements of the project with those of other activities and needs that were also important and often conflicting. In this atmosphere of give-and-take a truly joint project was born.

To diverge for a moment, an interesting sidelight of the give-and-take process came as Denver personnel were exposed to a relatively new idea--experimentation with N's of thousands. School people for a long time have known how to initiate, conduct, and report small scale research--30 pupils in an experimental class and 30 in a control class--and this is manageable and useful. The idea of abandoning this concept in favor of something unknown was not easily absorbed. There was concern over controlling such large numbers of people; but, beyond that, there was real wonderment over whether we could identify cause and effect relationships, whether anything would happen, and if it happened what we would do about it. Covariance analysis was an esoteric term absolutely foreign to Denver personnel. Yet, learning did occur and enthusiasm was built. Realistically though, there was more than a hint of "show me" on the parts of many until the first results were in. This will be discussed in greater detail in a later section. Suffice it to say that Stanford's representatives did a fine job of enlightening the educators on the advantages of large scale research.

During this time, under the leadership of Dr. Oberholtzer, steps were taken to bring the various segments of the Denver school community into the planning. The school board was necessarily a part of the planning from the beginning, for without the support and approval of forward-looking board members the project would never have gone beyond the first meeting. In addition, Channel 6 (KRMA-TV) personnel were informed of what was being done and were asked to make suggestions; those concerned with curriculum and instruction, especially those with elementary school or foreign language responsibilities, were consulted; elementary school principals were asked to appoint an advisory committee to work with the project; and a similar involvement procedure was used with teachers and PTA members.

By this procedure, not only were future participants made a part of the planning for information purposes, but, in a real sense, each group added something to the design. Another step in making it truly a joint project had been taken. Thus, when the time came to launch the project in February of 1960, most of the necessary machinery was already on hand and ready for use, and a favorable climate for research had been established.

One of the first, and in retrospect probably one of the most important, steps taken after receiving the grant was securing the decision of the

Denver County Council of Parent-Teacher Associations to sponsor the project. In this way a unique liaison that proved its worth over and over again during the four years of research was established among project personnel, the schools, and the home. This will be discussed in greater detail in the pages that follow.

The research office was established in the KRMA-TV Building. John Hayman of the Stanford staff established residency in Denver and became project director for Stanford, and James Johnson was named project director for the Denver schools. This type of arrangement is highly recommended. A joint research office with co-directors not only allowed the close contact necessary to provide a smooth-functioning team effort, but also provided visible proof of the cooperative nature of the project. Also, and of tremendous importance, it made the interchange of ideas not only an everyday possibility but for practical purposes a necessity. Dr. Hayman could actually experience the principals' scheduling problems, while Mr. Johnson was faced with such methodological problems as having incomplete data, or uncontrolled influencing variables.

A television teacher, a producer-writer, and an itinerant teacher were selected from Denver school personnel during February of 1960. They immediately began working with the foreign language supervisor and the specially appointed committees of teachers and principals to develop the scope and sequence of the TV Lessons and other related materials. Nationally-known specialists in foreign language and television instruction were called in to assist them, and by the end of April the scope and sequence for the first semester had been determined. The TV teacher and producer-writer began planning and writing individual lessons.

During this same three month period, meetings were held with all of the groups mentioned earlier--teachers, principals, PTA members, central administrators, and the school board. Each group was actively engaged in some form of pre-planning for the full-scale initiation of the project in the fall, and one could see the enthusiasm and anticipation grow as the time for active research approached.

May, 1960, marked the initiation of the in-school research. In this study, 550 fifth grade pupils were used to compare three different methods of instructional television presentation. Results showed a modified lecture method, with instructor-pupil interaction in the studio and active pupil participation in the classroom, to be desirable. This became the basic mode of presentation for all lessons used in the project--pupils on camera who could assist the teacher with his rate of presentation and with whom viewers could identify, and the teacher allowing opportunities during the lessons for classroom and home viewers to become active participants by answering questions in Spanish.

Principals built their schedules so that when school opened in the fall each fifth grader could view the foreign language telecast and follow the other prescribed activities to which his class had been assigned. The problems were immense: requiring a foreign language was an innovation necessitating the extension of the school day; system-wide scheduling was completely new; teachers--many with no previous foreign language preparation or experience--who had not been asked to teach a foreign language class before, were required to follow carefully-controlled experimental procedures; parents not only had to go along with these educational changes but also more than a thousand sets of parents were needed to participate actively by viewing the lessons and practicing with their children at home. Some of these problems and the methods used in dealing with them will be discussed in greater detail later in this report.

The first semester's lessons were videotaped during the summer and were reviewed by television and language experts and a local committee of administrators and teachers. Any lesson found to be unsatisfactory for any reason was scheduled for retaping.

Also, during the summer, as a direct result of the aforementioned involvement by various groups and the resultant enthusiasm that developed, seventy-five teachers voluntarily attended a summer workshop to receive training in audio-lingual Spanish teaching methods. This provided a nucleus of teachers with some experience around which to build the first year's experimentation. More will be said about the teachers' role later, but suffice it to say that the pioneering spirit of these and other teachers was a challenge to everyone concerned and was the real key to project success.

Approximately two-hundred teachers met for an inservice training session the Saturday before school started in September. At the meeting they received general information about the project and received training in the specific research procedure to which they had been assigned. They were given detailed explanations of what we were doing and why it was being done that way. They were challenged to reserve judgment of any aspect of the study until the results were known. They also received teaching guides and forms with instructions for their completion so that the needed information would be available. On the following Tuesday, over six-thousand pupils and twelve-hundred sets of parents were greeted by a smiling Señor Manzanares, the television teacher. The project was officially under way.

The importance of the initial activities discussed in this section cannot be overemphasized. Before any active research begins, a climate of acceptability and of cooperation must be established among participants and administrators at all levels, and a system of effective two-way communications must be effected. These things depend in part on the perceived legitimacy of the enterprise to be undertaken.

In this regard, three facts relative to the Denver situation seem worthy of consideration by other administrators who contemplate joint research. First, the research chosen met a real need of Denver school people, parents, and general citizenry--namely, the most effective use of instructional television and the introduction and evaluation of an elementary school foreign language program under carefully controlled circumstances. Second, school personnel and the entire community had received some indoctrination in research methodology and the practical values of educational research through a series of studies conducted during previous years. Third, the two institutions entered into the long-term effort with enough prior discussion of the potential problems they might encounter to assure that the climate was a healthy one. The potential loss of institutional independence was more than balanced by the potential mutual gain, and this fact was kept uppermost in the minds of all concerned.

IN SUMMARY

Our experience has shown the value of:

- combining the resources of a school system and a university in a joint research effort
- choosing a project that meets a real need
- establishing a joint office with co-directors
- recruiting a staff that can be induced to blend enthusiasm with understanding, and drive with patience
- allowing time for participants to get acquainted and establish a climate of cooperation
- encouraging broad active participation from all groups associated with the study.

II. HARMONIZING THE VIEWPOINTS OF THE EDUCATOR AND THE RESEARCHER

Nothing said in the preceding section of the report should lead the reader to assume that the research office was opened, the research effort was launched, and no more problems were encountered. It didn't work that way; it seldom, if ever, does.

A researcher feels most comfortable in a laboratory, of course, where he can exercise strict control and have exact measurement of all variables which can influence results.

An educator, on the other hand, is generally not research oriented. He is more interested in helping pupils achieve specific educational goals and may become frustrated when he feels that certain activities are hindering the realization of these goals. He is not too sympathetic with controls, especially if the reasons for them appear hazy, and he reacts negatively to measurement that doesn't seem to be directly related to learning.

Thus, by background, training, interest, and outlook the project team approached almost every problem from diametrically opposed points of view--the researchers dreaming of the happy solitude of the spotless laboratory and the school people wishing that somehow the controls and measuring devices would go away and they could get on with their teaching without interference.

The literature deals vaguely and sketchily with this problem, if at all. Yet, it lies at the very heart of educational field research. It must be faced realistically if any cooperative research effort is to be successful.

Roy Hinderman, deputy superintendent of the Denver schools, was the man most responsible for helping the Denver-Stanford research team in this problem area. Dr. Hinderman had actively participated in field research projects, both as a university researcher and as an educator; and, as the person appointed by Dr. Oberholtzer and the Board of Education to be in charge of Denver's instruction program, he had a special interest in the project.

Dr. Hinderman prepared the research staff for the problems they would face, at least the general ones. He set the stage for the cooperative attitude of give-and-take that would be necessary, and he was always available to assist as needed. This was sincerely appreciated by project personnel. It met a real need, and it resulted in a more realistic approach to cooperative research.

What do we mean here by the term "realistic approach"? Specifically it means facing the fact that everyone connected with such a project--central administrator, principal, teacher, parent, researcher, television specialist, language specialist--brings a point of view that is unique to his own background, interests, and goals. Divergent views are the norm rather than the exception. Thus, compromise becomes a necessity if progress is to be made.

If we listed every example of the divergent points of view of project personnel and the compromises reached we would be writing a tome; one example may be in order, however, and this one lives vividly in the memories of all concerned. At the beginning of the second year, after careful planning, a pre-test for sixth graders was agreed upon and videotaped, answer sheets were printed and distributed, and all seemed to be in order. Then, on the fateful day--a Thursday, a new engineer at the TV station misread the schedule and pushed the button at the wrong time. When the hundreds of classes tuned in for the test, the program was half over; confusion reigned supreme, and no pre-test results were obtained. A pre-test was sorely needed, but project personnel had only until the following Tuesday, when the first TV lesson was scheduled, to decide what to do about the situation and get it done.

The principals and teachers seemed to favor either using the same answer sheets and rescheduling the test for the next available date or forgetting the entire matter; Dr. Hayman considered a completely new test as the only valid answer; station personnel were chagrined, needless to say, but said no rescheduling seemed possible and new videotaping was out of the question; meanwhile, Mr. Johnson writhed in anguish. The compromise solution was to use a part of the fifth grade final test which was videotaped and available as the pre-test, to rearrange the TV schedule to allow telecasting, to mobilize School Press to print the tests on a rush basis, and to recruit every available resource to get them packaged and delivered on time. Really, no one was completely pleased with this arrangement and yet it seemed to be the only mutually agreeable alternative. It brought order out of chaos and moved us all "back from the edge of the cliff."

Acceptance of the need for compromise took time, because compromise often has negative connotations. Frequently, it is considered a sign of weakness. It is not weakness when used intelligently, however, and once project personnel realized this, the "team" began to operate as one, rather than as a disorganized group of individuals.

Thus, as decisions were contemplated, each participant always seemed to arrive with his own ideal solution, some room for negotiation, and a point beyond which he would not go. The result was a good deal of frank give-and-take in which compromise never became synonymous with surrender.

A staff meeting was held each week at which time problems were discussed and compromises reached. The more practice participants had in arriving at these joint solutions, and the more faith they gained in those with whom they worked, the more expediently the decisions were reached.

Orginally as much as a full day would be spent in negotiating a relatively unimportant item. Each person wanted his own way. Gradually this concept changed. As one participant commented, "We are beginning to act more like mountain climbers who are roped together than as free-lancers climbing on different mountains." The danger of failure in any aspect of the study became a matter of total group concern.

The key here is "group concern." The group gradually began to enjoy the exchanges, the divergent points of view that were expressed and discussed. We recall vividly the time that Dr. Hayman made his usual plea for more information from the pupils' cumulative records. In spite of the tremendous task gathering such data presented, part of the Denver staff sided with him for the first time. They argued that such information was absolutely vital--in so doing, a milestone had been reached. From this point on, specific allies could never be anticipated because the group approached each new issue in a dynamic way.

In this way, it was not the Denver staff versus Dr. Hayman, or the television group versus the curriculum writers, and the like. Those who originally approached a problem in an inflexible or dogmatic way gradually began to shift their thinking. An obvious fact was that it worked better that way, it was more successful.

Those who have experienced the vital give-and-take process of solving problems in the Denver-Stanford project would never go back to a cut-and-dried, authoritarian approach--at least not by choice. They firmly believe that this is the only true way to harmonize opposing points of view. They have found that harmonizing has a unifying effect. It does something for the participants as well as for the project.

IN SUMMARY

Our experience has shown that:

- a researcher is often uncomfortable in a large field research situation; he prefers the strict controls possible in a laboratory
- as a result of this orientation, the researcher tends to be overly dictatorial. Many of the controls he wishes to impose would seriously disrupt the educative process, and the cost would be higher than the gain
- an educator is usually not research oriented; he is often impatient with research controls and reacts negatively to measurement that doesn't seem directly related to learning
- dictatorial methods are antithetical to the educator's orientation; he instinctively opposes major restrictions on a teacher's classroom behavior
- a great deal of understanding and of give-and-take and compromise is necessary to overcome the aforementioned divergent viewpoints
- as the staff began to harmonize attitudes, work-out differences, and operate as a "team," it became obvious to all that a workable balance of research and educational methodologies was not only possible but was being achieved; it was an enjoyable and rewarding experience.

III. COMMUNICATING WITH THE PARTICIPANTS

A speaker at a national convention observed recently that whenever you have two or more people involved in any activity you automatically have a problem of communication.

Looking backward, project personnel became panicky. One commented that if we had fully realized the magnitude of our problems we never would have started. This is undoubtedly an exaggeration but it has an element of truth. Perhaps a certain amount of naiveté is necessary in any pioneering effort. There's no doubt that we entered into the project with more enthusiasm than experience, with more faith than fear.

Fortunately, the staff did receive important briefings at the outset from Dr. Schramm, Dr. Oberholtzer, Dr. Hinderman, and others on the importance of establishing and maintaining good communication with everyone involved. Then, during the project, frequent meetings were held to discuss what was being done, to analyze problems that had developed, and to make plans for the future. We still are amazed and horrified at the two seemingly innocent bulletins sent to principals and teachers respectively. They announced a very important meeting, gave two conflicting dates for the meeting, and then--to add insult to injury--failed to indicate the meeting place. The switchboard lit up like a Christmas tree. We soon found out about communications.

In every case such as the one mentioned above, where poor communications did develop, the problem was attacked immediately and was not allowed to continue. We were constantly reminded that effective communication must be two-way, not one. We were constantly challenged to find new and better ways to open the two-way lines of communication between "those out there" and "us down here."

As indicated earlier, the first major communication challenge began with the "down here" group. It took a great deal of initial effort and constant practice to keep the lines of communication open among the relatively small number assigned to the project staff. A weekly staff meeting was an absolute necessity and there were times when we were forced to meet almost daily. In spite of all this, misunderstandings occurred. We remember the time that three meetings were scheduled at the same time, all requiring the attendance of Mr. Manzanares and Mr. Andrade, and each scheduler was sure that he had cleared his date at staff meeting. In this, and many other instances, we were vividly reminded that communication is indeed a constant problem.

As we dealt with the "out there" groups, a general pattern seem to evolve by the second year. First, where possible, we tried to meet with a small representative sub-group of the group in question for a planning session. We would explain the project, discuss the apparent problems, and then enlist the aid of the sub-group in designing a plan to reach the total group. We enlisted their active participation and were open to their suggestions. This proved to be a very potent process and is highly recommended.

For example, we found that parents welcomed the opportunity to discuss what was being done; and we found that having parents assist us in planning the session, and then taking an active part in the program itself, did wonders. The same was true for principals, teachers, and the other groups with whom we worked.

Yet, we found that there was a real temptation in subsequent meetings with different parents, for instance, to eliminate this step as a frill. Each time we did we found that the effectiveness of the meeting dropped. It's a time-consuming step but one that is well worth the effort.

Another lesson we learned, and again not without distress, was that what seemed to the writer to be a clearly-worded and concise document often proved to be "Greek" to the reader for whom it was intended. Even when dates, directions, and details were correct, problems occurred. The immediate reaction was almost automatically "What's the matter with those characters, can't they read?" Yet, after deliberation, it was usually evident that the writer was too close to what he was writing about and often lapsed into esoteric language without realizing it. One bulletin to principals elicited many requests for a bulletin to explain the first bulletin; we were accused of using high-sounding double talk. The opposite extreme was equally disruptive--that of "writing down" to the reader, of being overly precise and repetitive. One set of directions in particular was reacted to violently. Upon investigation, the objection seemed to boil down to, "Anything written in such terms is an insult to the intelligence of a teacher."

Thus, the general process that developed for the production of written communication was to have the person write it, submit it to two other staff members for critical appraisal, and then take it out and have two of the people for whom it was intended read and react to it. This last "action research" phase proved to be invaluable. This, too, may seem to be an added step; but it isn't if one is really concerned about effective communication.

This is certainly no cure-all for the problems of misunderstandings in written communication, but it is a step in the right direction. There will always be the few who are exceptions to every rule, but the vast majority will benefit from the little extra care taken to produce written communication that really communicates.

It was also found that frequent communication was desirable. The participants wanted to know what was going on and why. There seemed to be a direct correlation between a lapse in communication and a drop in interest. This seemed to hold true for all participants--pupils, teachers, parents and principals.

As indicated earlier, the research was conducted in relatively new and somewhat controversial areas--television teaching, elementary school foreign language, electronic aids, teaching machines, direct parent involvement in specific instruction, and the like. Thus, there was a rather unusual need for effective communication; but the staff reports that this accounts for only a part of the desire for information.

Another, and perhaps more important part, is that people expect more information now. World events are as near as their radio or TV sets; they are bombarded through advertising with such things as the supposedly medically proven reasons for taking "XYZ Headache Remedy"; they have been conditioned to ask "why."

Also, people like to feel they are really a part of something. The supposedly slight difference between working on my project and working on our project is not slight at all--it is immense. It may well be the difference between success and failure. In addition, the adoption of this point of view affects the staff too. They are not communicating with parents, for instance, merely because they want them to do something or because they feel they'll get in trouble if they don't; they are communicating with partners who have a right to have all information possible.

No one on the staff would consider himself an expert in communications, but each of us now has a vital interest in the art of communicating effectively. Each has seen the problems one carelessly-worded phrase or comment can cause. We have also seen the benefits when effective two-way communication takes place.

This problem merits careful study by anyone conducting research. In fact, it really merits study by anyone dealing with people.

IN SUMMARY

Our experience indicates that:

- the problem of communication is a very real one
- everyone connected with a project must be concerned with the task of communicating effectively
- project personnel must first learn to communicate effectively with each other before they can hope to do so with participants
- effective communication must be two-way
- it is important, when possible, to have small representative sub-groups assist in the planning and actively help design activities and written communication for their group (i.e., teachers, parents, principals)
- written communication often fails to transfer the desired message because the writer is too close to the subject about which he is writing; therefore, it is important to have others read and react to the bulletins and memos before they are sent out
- frequent communication with participants is highly desirable
- people like to feel a part of what is being done; thus, every effort should be made to allow participants to think of the project as theirs, not someone elses
- carelessly-worded phrases or comments must be avoided, if possible; every effort expended to prevent them is well worth it.

IV. DEVELOPING THE CURRICULUM AND RELATED MATERIALS

Large-scale educational research provides both the impetus and the conditions for curriculum construction of the most precise and sophisticated order; those involved with the Denver-Stanford Research Project on Instructional Television learned this fact over a period of time. It would be to the advantage of any school system undertaking large-scale research to recognize, at the outset, the implications for curriculum and to capitalize upon the situation.

Reference has been made to some of the machinery that was put into operation early in the project to develop curriculum. The leadership for this aspect of the project was provided by Genevieve Overman, supervisor of foreign languages, and Lloid Jones, director of curriculum. The machinery consisted essentially of a committee of teachers, principals, parents, and supervisory personnel whose task it was to work out a program together.

The committee did a good, substantial job of developing a scope and sequence for the 108 15-minute television lessons for use in the first year of Spanish instruction. The ingredients of their successful work were empirical thinking, rationalization, available material, and consultant advice.

The empirical thinking came from the experienced teachers--those few who had conducted experimental foreign language classes during the years prior to the study--and from the larger group who had no language teaching experience but were expert in the general area of elementary teaching. The rationalization came first from numerous articles expounding the merits of the relatively new aural-oral (now audio-lingual) system of language instruction. Then, as time passed, participants had the opportunity to attend conventions or to hear visiting speakers who shed further light on this new concept of teaching a foreign language.

The available materials came from the searching examination of instructional guides in elementary school foreign language which could be obtained from other school systems.

The consultant advice was provided initially by George Scherer, a language professor at Colorado University. Later, other eminent linguists were consulted. Among those who contributed extensively were Theodore Andersson, University of Texas; Faye Bumpass, Texas Technological College; Arthur Campa, University of Denver; and Carlos Rivera, El Paso Public Schools. Each brought a different viewpoint, a different emphasis. They concurred on the desirability of elementary school foreign language instruction, but they differed greatly as to the exact instructional methods which would be most productive.

Probably no field on the American education scene has experienced as much change in recent years as has foreign language teaching. Thus, one would expect a certain amount of philosophical difference. However, no one associated with the project anticipated the strong, almost violent, disagreements encountered.

Even after agreement was reached on a basically audio-lingual, situational approach, there were differences over the relative merits of individual lessons versus units, words in isolation versus words in context, translation versus no translation, "Castilian" versus "Mexican" Spanish, "fast" versus "slow" Spanish, and the like. It always seemed strange to the research staff to have such violent disagreements over the pronunciation on one sound in Spanish when there seemed to be no great concern over the almost unbelievable differences encountered in the English language--the late President Kennedy and President Johnson being classic examples of extreme difference.

In this milieu of strong opinions and relatively little research evidence to back the opinions, project participants were faced with the necessity of picking and choosing what seemed to be the most fecund ideas and suggestions, building the curriculum and producing related materials, and providing for reactions and objections. This was done and the reactions and objections were not long in coming. Experience has shown that, fortunately, most of the choices were sound; the empirical thinking of experienced teachers, those closest to Denver's situation in general, made for sound decision--not perfect, certainly, but sound.

Some of the differences among foreign language experts, in fact, served a most useful purpose in another way--they provided the basis for some of the experimental treatments used and compared in the project. This occurred when there was no logical way to determine which of two or more differing opinions was valid.

All initial materials were developed with the assumption that they would be changed. All who used them--parents, teachers and pupils--were urged to make suggestions. We expected many changes as a result of experience and research findings, and the changes in each case improved the product.

A statement that appears on page 10 of the 1958 publication The Denver Program of Instruction: Its Development, Application, and Improvement guided much of what was done. It certainly is pertinent to our discussion, and states that "when people help to define the ends they are working toward, productivity is greatly increased because (1) the activity enables them to establish clear objectives to use in checking their own performance, and (2) people apply with more zest, resourcefulness, and tenacity to the achievement of purposes they have had a part in formulating."

These suggestions would undoubtedly be harder to apply in a situation where this was a new idea rather than a standard practice as in Denver. However, experience elsewhere has also shown how valuable this approach can be, and it is highly recommended to others faced with a similar problem.

Really, any innovation in curriculum is difficult. A rapidly changing field such as elementary school foreign language instruction is inherently unstable, perhaps even explosive, and change is the rule rather than the exception. It's the specific type of change that precipitates controversy. It may be equally difficult to change something that has become solid and fixed, though for different reasons. An example of this was Denver's introduction of reading instruction into the kindergarten. The objections were not against the type of change, it was against change itself. Thus, the challenge is always there, the difference is either one of degree or one of direction.

As indicated earlier, we set out to produce a nourishing dish composed of empirical thinking, rationalization, available material and consultant advice. Yet, we must emphasize again that we found no applicability for the cliche about the number of cooks spoiling the broth. In fact, the opposite was true. We made every attempt to recruit cooks and we encouraged their joint participation.

As stated on page 19 of a DPS pamphlet Curriculum Development through Committee Organization, and as we determined empirically, "programs, policies, and decisions are better when they come not from an individual expert of a small elite group, but rather grow out of the best thinking of many competant individuals." This is the way the Denver-Stanford materials were developed and they are now being distributed nationally by a major publishing company as somewhat of a tribute to this idea. Most of them bear no author's name because, in reality, the authors are legion.

A combination of this approach with the impetus and conditions provided by large scale educational research can do wonders and is highly recommended.

IN SUMMARY

Our experience would seem to show that:

- large-scale educational research presents unusual possibilities for precise and sophisticated curriculum construction
- a combination of empirical thinking, rationalization, available material and consultant advice can be used effectively to develop a new or revised curriculum
- in some fields, at least, there are as many different ideas as there are experts. Thus, decisions must be based on the best information available, if not on a concensus
- where no logical basis for a decision exists, however, the different ideas can provide the basis for really useful experimental design
- when people help define the ends they are working toward, productivity is greatly increased. This is especially true in curriculum development
- those using experimental materials are more likely to aid significantly in the up-grading of the materials if they know their suggestions are sought and will be considered carefully
- the more resources that can be brought to bear upon the problem, the better the chances are for finding a solution.

V. MAKING THE LESSONS

Instructional Television has been described as a "Twenty-one Inch Classroom." It is that and more. In reality, it can be a "Million-mile Classroom." It has tremendous potential and flexibility

On the other hand, there is nothing magical about the medium. Uninspired or unimaginative teaching is not improved by televising it; in fact, just the opposite is true. A poor lesson televised to hundreds of classrooms compounds the error. Not only is it seen by thousands of pupils rather than the usual thirty, but it is also viewed on a screen that is usually associated with relatively high-budget drama, sports, and entertainment. The viewer expects more than he would from an average lesson; he is more critical.

Thus, although the Denver-Stanford project was concerned primarily with the context of the lessons, rather than the lessons themselves, the quality of the lessons had to be a major consideration. Realistically, the lessons had to be of high quality or there wouldn't be a context worth research. We had to capture and retain the attention of fifth and sixth grade pupils and their parents as well. In addition, this series was not to be used in the same manner that other Channel 6 lessons were--as a supplementary and enriching experience to the regular teaching--but as the basic teaching itself. Thus, there was a special need for high quality TV lessons.

One of the first problems was locating the TV teacher. Here again, the uniqueness of the medium made the task more difficult. The TV teacher had to be an expert in his subject field and an expert in teaching. But, on top of this, he also had to be an expert at projecting his personality through an electronic device into hundreds of classrooms and livingrooms in such a way that people of diverse ages and backgrounds could relate to him and learn from him. The number of people with all these qualifications was limited, especially in the field of Spanish.

Gerald Willsea, director of radio and television activities, took the lead in finding a teacher with the varied qualifications listed above. Fortunately, after much searching and many try-outs, Mr. Willsea and the committee located a young man, Fred Manzanares, teaching in one of the junior high schools, who met all the criteria. He had extensive teaching experience at the elementary school level, spoke Spanish natively, had a master's degree with a major in Spanish, spoke English without an accent, and most important, perhaps, had that magic ingredient--the TV people call it "sparkle"--that allowed him to project his warm, friendly manner into the classrooms and homes. Señor Manzanares was also an actor capable of taking the many roles required of an audio-lingual foreign language teacher who must explain new words and phrases through meaningful, life-like situations, rather than through English translation. We were indeed fortunate to find him.

Even these essential qualities are not sufficient, however; the TV teacher must also be able to work closely with others. He cannot merely close the door, as he can in his own classroom, and begin to teach. He must become a part of a team--curriculum guide writers, lesson writers, producers, directors, cameramen, announcers, stage designers, research personnel, pupils and adults, appearing on the show, and the like.

The other side of the coin is that this production team must also be able to work with the TV teacher and must be compatible among themselves. Recruiting such a team was thus a second problem. As indicated earlier, a committee had already been working on the scope and sequence of the lessons. So parts of the team had already been recruited and were working. A teacher with elementary school teaching experience who also had extensive TV experience, Jay Van Trees, was assigned as producer-writer. This position was unique to this series but was used throughout KRMA TV's programing. The producer-writer, in addition to performing the two tasks indicated in the title becomes the teacher's "right-hand man." They must work in an extremely close manner if they are to work effectively; and in most cases become the closest twosome in the larger team. In the case of our project this was certainly the case. Another successful young elementary teacher with a similar background to Mr. Manzanares', Manuel Andrade, was assigned to help with the lessons--both on-camera and off-and he and his wife became the mother and father of the television family. Mr. Andrade also served as the itinerant teacher in the project, having the primary responsibility for class visitation, inservice training, etc. James Case, the man in charge of the operation of the station, made the assignments of TV personnel; he directed the first few shows himself and then assigned further direction to Jack Schlaefle, one of his most highly regarded assistants. Each of these people was carefully screened, and the mutual respect, friendliness, and strong group identification that they, with the TV teacher, quickly developed, attests to the validity of the careful selection process.

We have indicated earlier, in the chapter on harmonizing the views of researcher and educator, that compromises are inevitable--either that or warfare. If this is true in that context, it is doubly true in the field of television teaching--especially if the subject field happens to be elementary school Spanish. Thus, the third problem was faced.

One of the real sources of potential disagreement lies in the concept of what constitutes a good lesson. In the initial stages, at least, the director may define quality in terms of "camera angles," "lighting and contrasts," "artistic composition," and the like; the producer-writer may define it in terms of how carefully the teacher was able to follow the script; the television teacher may define it in terms of his personal performance and his ideas of good teaching; the classroom teacher may define it in terms of how well it held the attention of her class of thirty; and the linguist may define it in terms of such things as the choice of vocabulary, the teacher's speaking rate, inflection, and intonation.

The process of harmonization here was very similar to that described in the earlier section. The differing points of view were discussed openly, negotiated, compromised, and eventually solved. Only when this production group became a closely knit team did they begin to fit into the larger and even more diverse group concerned with the totality of the project.

The fourth problem, alluded to earlier, seems innate in the mixture of television and Spanish. In television, especially open-circuit television, you multiply your potential critics. One minor slip--be it a slow camera switch, a momentary sound problem, excessive blinking of the eyes by a performer, a less than inspired performance by the teacher--will bring forth comment. Add to this the problems of foreign language instruction--a questionable usage, a mispronounced word, a teaching procedure which violates someone's philosophy, a too-fast or too-slow pace--and you, again, are sure to hear from the "experts." The effort is conducted under the glare of a spotlight, and if a person can't stand the heat he should never venture onto the stage.

Perhaps an example of the heat referred to will allow a clearer understanding of the problem. In this case, the television teacher used the studio blackboard to make a point. Soon, telephones began to ring and letters began to arrive--both at the studio and at the newspapers. Viewers, committed unreservedly to the idea of audio-lingual instruction, protested loud and long against this intrusion of reading and writing. They felt that the introduction of the written word was unnatural, academic, and archaic. An equally vigorous group cheered loudly. Now we were giving pupils something substantial. An early decision was to go along with an exclusively audio-lingual program for one year, avoiding use of the written word; during the second year we would introduce, as part of the research design, the problem of when and how to begin reading and writing.

Another case in point occurred when the Spanish phrases for brushing the teeth, washing the hands, and combing the hair were presented. For the hair, Mr. Manzanares used the Spanish word pelo. Once again the telephone came alive and the mail baskets filled up. Language purists from throughout the territory reached by our station registered strong protests. Using pelo to describe human hair, they declared, was language of the gutter. They described this as "Tex-Mex Spanish." The purists questioned our intelligence, our integrity, and almost our ancestry.

Again, as soon as the issue became known through an article in one of the newspapers, protagonists sprang up in separate ranks. Pelo, they stated, is the common term for hair among the Spanish speaking peoples of Southwestern United States. The alternative, they commented, was cabello--an academic, pedantic, and just plain ridiculous term in this context. The compromise was the establishment of a committee of experts to review the vocabulary and lesson plans to be used prior to taping and the videotapes themselves prior to telecasting. With this operation, public criticism of the lessons was largely, although not completely, stilled.

In retrospect, it cannot be denied that, as a result of the ceaseless attention and debate focused upon the Spanish series, the quality of instruction steadily improved. Señores Manzanares and Andrade became television stars known throughout the city. When they visited schools they chatted gaily in Spanish with their admirers as they signed autographs. These expert teachers were entering hundreds of classrooms and thousands of homes in a new and unique fashion.

Truly, the "Twenty-one Inch Classroom" presents many challenges. We have attempted to indicate some of the problems as well as the strengths; it is certainly not a cure-all for all the problems of American education. However, used correctly, it can help solve some of them.

Instructional television must ultimately be judged by the results it produces with individual boys and girls in individual classrooms. If it's technically perfect but instructionally ineffective, it must be changed.

Research provides the means of evaluation, the motivation for change, and need to reevaluate. It forces questions that might easily be ignored for years. The Denver-Stanford project is living proof that such a process is fruitful. The videotapes of the lessons developed are being used by school districts from New York to California: Señor Manzanares continues to teach Spanish to many thousands of boys and girls in an effective manner.

IN SUMMARY

Our experience has shown that:

- there is nothing magical about television itself. Uninspired or unimaginative teaching is not improved by televising it; in fact, just the opposite is true
- the quality of television lessons must be very high if the viewers are to have and maintain interest in the series
- a television teacher must be an expert in teaching per se, but, more than that, he must have a subtle, almost undefinable quality--those closely associated with the media call it "sparkle." This quality enables him to project himself, his personality, and his teaching through a picture tube and have people of various ages and backgrounds relate to him and his teaching
- the greatest care must be exercised first in selecting the TV teacher and then in selecting the production team to work with him. This is doubly true when the production process must accomodate the unfamiliar component of systematic research
- viewpoints must be harmonized before the teacher, other talent, director, and producer-writer can function as a team; this is especially true in the TV context since most of these people, by the nature of their work, are basically "artists," and differences among them are often great
- television teaching, especially via open-circuit TV, is subject to the closest scrutiny; and unsolicited outside comments, often hypercritical, are certain to be encountered, especially where the subject field is rapidly changing.

VI. MOBILIZING THE PARENTS

"We'll need a minimum of 300 sets of parents the first year of the project." Stated this way in one of the early planning meetings, the need for parents was duly listed under such other requirements as television sets, teachers, furniture, pupils, office space and equipment, and project personnel.

As the needs were considered in greater detail, however, this one began to assume unique and almost frightening qualities. What was rather casually accepted as a simple task--involving 300 sets of parents in the project--became quite intricate after more careful analysis.

Meaningful, researchable involvement meant asking parents to rearrange their home activities so that family members could view and participate in the Spanish lessons televised three nights a week; to have the family practice speaking Spanish in suggested ways, under varied situations, at other times of the day; to use and make suggestions for improving various materials; to play records that were furnished to allow practice in listening to and copying the speech patterns of native speakers; to attend meetings, fill out forms, and keep diaries.

In reality it meant much more than this. It also entailed communicating with other parents so that they didn't watch the evening telecasts nor practice Spanish. In other words, it meant providing each fifth-grade parent a clear understanding of what was going to be tried and what the alternatives were under the research procedures to be used, asking them to volunteer, and then asking those who didn't volunteer to encourage their children to follow another assigned procedure. Parent participation was rather quickly recognized as the most uncontrollable phase of the project, and this, coupled with possible morale and community relations effects of any failure, made crucial its planning and implementation.

As the planning progressed, and the complexity of attendant problems was recognized, anxiety for this part of the project increased.

Thus, we had problems; but before considering these and their solutions in any detail it might be profitable to discuss the reasons for involving parents in the first place. At the inception of the project, parents were recognized as a potentially vital element in the context of open-circuit telecasting. Open-circuitry made the program generally available and thus, it seemed, allowed parents a new and unique opportunity to become directly involved in their children's education.

Most parents want to help their children; they want to be involved. They recognize the ever increasing importance of an education--that almost every potential employer has increased his educational requirements. It is becoming vital that each youngster realize the greatest possible gain from his educational opportunities. This is certainly not a new problem, but with the rapidly increasing emphasis on education, the equally rapid changes in curriculum, and the complexity of life in general, the magnitude of the problem has increased tremendously.

With open-circuit telecasting, anyone with a television set can receive in his home exactly the same instruction which is given in the classroom; this has not been possible with the more conventional teaching practices. The availability of the instruction gives parents a unique opportunity for direct involvement. Thus, it seemed possible that this new opportunity for parents to cooperate more directly in their children's learning might represent a relatively simple method of improving American education.

Enough rationale; back to the problems. We have already outlined a few of them. Another real one, and one that created a great deal of heat--if only limited light--during the early stages, was the objection to parent participation on linguistic grounds. Several consultants felt that in audio-lingual foreign language instruction, the most disastrous step possible would be to allow parents to practice their "spurious Spanish" on students. They felt that, in addition to their less than desirable speaking models, parents would also resort to translation and conjugation--the method they had been exposed to as students.

Also, several experienced educators expressed doubts that many parents would be willing to cooperate. They further indicated that, regardless of any theoretical potential, the whole idea was impractical and even if parents did sign up, they would never follow through.

Since research is the process of testing ideas--of determining whether something believed to be true is true or not, the aforementioned linguistic and educational objections really presented no problems at all. Rather, they provided assumptions to be tested and hypotheses to be checked. The more general problems discussed earlier were very real, however, and had to be faced.

Fortunately, as indicated in an earlier section, project personnel were not forced to struggle with these problems alone. If we had been, we would undoubtedly still be struggling; in fact, we might still be looking for our first 300 parents. The PTA was ready, willing, and extremely well prepared to tackle the problems with us.

In March of 1960, Dr. Oberholtzer, Dr. Hinderman, Mr. Willsea, and Mr. Johnson met with the newly-elected President and Vice President of the Denver County Council of Parent-Teachers Associations to discuss the Denver-Stanford project and its ramifications for Denver's parents.

We have mentioned earlier that parents had taken an active part in planning the project, but the PTA organization as such--and the newly-elected officers in particular--had not been directly involved. Also, until receipt of the grant, the entire project lay in the realm of possibility; now it was a reality.

Mrs. Miller, the PTA president, and Mrs. Hawkins, the vice-president, participated enthusiastically in discussions about the project and expressed a desire to take an active role in it. They also volunteered to present the project to their executive committee.

The executive committee voted unanimously to proceed and to present the idea to the principals and presidents of each school. These people in turn, voted to participate and to sponsor the project as a PTA function. Also they indicated that that could assure enough parent participation to meet the minimum requirement of 300 families. They agreed that the PTA organization would assist in the planning, and that they would handle all administrative details of the project involving parents.

The task they assumed relating to parents was a vital one and certainly one of major magnitude. They agreed to:

- inform parents of the project and its needs
- recruit needed participants
- distribute materials related to the project
- collect any information needed from participants
- motivate participants periodically to follow their assigned procedures.

Thus, a vital element was added to the cooperative effort--the parents; and all details were to be handled by the group who had the clearest understanding of parents, their needs and problems--the parents themselves. This is the "magic" ingredient mentioned earlier in the section on communication.

The next step, especially tension packed, was to determine the number of schools which could meet the first year requirement of having at least one-half of the parents in one fifth-grade class participate, and the principals and PTA presidents were asked to supply this information. When some 20 elementary schools indicated they could meet minimum requirements for at least one class, sighs of relief were heard in Denver and Stanford for this meant more than 300 participating parents. Another crisis was passed.

A steering committee for each school was established to work directly with individual parents--whether participants or not. Included in each local school committee was the president, first vice-president, parent education chairman, television chairman, and one other fifth grade parent from the PTA, and the principal and a teacher from the faculty.

The local committee then met with all fifth grade parents. They explained the total project in detail, gave some background of research and the need for controls, and then discussed the parent participation phase so that the parents would understand exactly what would be expected of them if they should agree to participate. After discussion, a vote was taken to determine if the school should be included in the parent phase.

The individual committees reported back to the central steering committee, and the results far exceeded expectations. Thirty-six classes in 28 schools actually volunteered, giving 1240 sets of parents. This excellent response allowed some expansion of project aims since considerable latitude was available to compensate for those who might not actually follow through.

It was an exciting and at times frightening year, especially for Dr. Hayman and his Stanford associates. Most of the PTA's and schools seemed to be doing very well, but some few appeared careless in their contact with the parents and project personnel. It was easy to sit in the research office and imagine all kinds of dire consequences. Were some groups really not doing what they were supposed to? If so, would this ruin the experiment? Did the others understand well enough what their activities were, and would it make any difference if they did? We were models of ambivalence when the first test, a mid-term, approached. We had worked hard to get the test ready, we wanted the results, but we were also afraid of what they might show.

Fortunately, when the first results were analyzed, and when the January and June tests were analyzed, the data showed no such dire consequences--in fact, they showed just the opposite. Pupils with parent help did significantly better (beyond the .001 level) than those whose parents did not participate. The next two years, parents participated at both fifth and sixth grade levels. The opportunity to volunteer was presented to all, whether or not any others in a particular class took part. During 1961-62, 2,874 fifth grade and 1,770 sixth grade parents continued participation. Again, the results were clear-cut and exciting--parent help at home does make a difference.

Several people, on reading the parent-participation results, have been worried by the selection factor introduced through volunteering. "Wouldn't the children of these parents have done better anyway?" they ask. These children might have done better anyway, but we are certain of the value of parent help because of the analysis technique we used.

Through the use of Denver University's Datatron computer and the covariance analysis statistical technique, any prior advantage these pupils had in IQ, grade point average, and other academic skills was accounted for. Thus, our results were "pure" and we were sure that parent help at home--with the invaluable assist of the PTA, principals, and teachers--had succeeded. Problems nothwithstanding, and visiting experts to the contrary, the hypothesis had been proved; parents can use instructional television to help their children learn a foreign language.

Most educators have thought for a long time that parents represent the greatest single motivating force acting on their children; the problem has always been how to mobilize this force and make positive use of it.

As indicated earlier, parent help is often less than helpful--it degenerates into a nagging session and becomes a frustrating experience for all concerned.

The secret of success in this regard in the Denver-Stanford project, if a single one should be indentified, would undoubtedly be that parents had very specific and positive things to do; they were asked to follow and react to specific activities and were urged to make it a "fun experience." This should provide a clue to any of us who seek parent help in any subject, and it has long-term implications far beyond television usage.

Perhaps the most exciting finding in the entire study was that pupils whose parents helped in Spanish at home did better in other subjects as well. Because we suspected a general motivating effect from parent participation, we obtained fourth and fifth grade academic averages for all pupils in the study. Marks in English, reading, spelling, arithmetic and social studies were used for these averages. We found that, whereas the pupils whose parents were not participating in the Spanish home activities had, over-all, a slightly lower average in the fifth grade than in the fourth, the opposite was true of pupils whose parents were participating. Their averages went up! Although the changes were small--3.159 to 3.225 for parent-help pupils and 2.875 to 2.804 for non-parent help pupils--the difference would not occur by chance as often as once in 1,000 times. Note that it was the higher averages which increased. This in itself is unusual and adds confidence to the finding, for high group averages normally diverge toward the mean.

Also, there were other indications of the value of family participation. PTA members submitted a number of reports from parents which indicated that the home participation activites were "good for the family," "brought the members closer together," "helped parents see what happened in school," and "made the children understand their parents were interested." Surveys seemed to give credence to those comments, especially where the families viewed the televised lessons and practiced regularly.

But let us hasten to say that without effective communication, coordination, follow-through, and the like, it could never have happened. With 1,200 sets of parents, as was the case the first year, it was a gigantic task; with over 4,000 it was greatly multiplied. Merely the logistics of getting the correct materials to the parents and collecting the needed information from them was a monumental task. Without the PTA, and its carefully organized corps of workers, it could never have been accomplished.

To assist with communication, the PTA assigned three of its officers to a summer television workshop to produce a guide for local schools. The guide was developed around a football theme, since the project began its operation in the fall, and it proved to be invaluable. Research was described in terms of a carefully played game in which the rules must be followed exactly to achieve a favorable outcome. Since it was prepared by the PTA for its local officers, the end result was well tailored to its audience. At the same time, it contained all information vital to the research--each procedure was described, suggested activities were detailed, meeting dates outlined, etc.

No one should infer from what we have written that there were no problems--there were. A few schools really "fumbled the ball." Some schools designed a wonderful plan and then proceeded to forget it. However, the important fact is that these were exceptions rather than rules, and that the outstanding results were achieved in spite of some of these relatively minor problem spots. This is further evidence of the real advantage of large-scale research--the size of the N tends to eliminate the impact of those few who deviate, and also it makes achievement of differences at a significant level that much easier. The traditional experimental versus control classes of thirty pupils each puts too few eggs in the available baskets. We're glad we had thousands.

More complete and detailed information on parent participation may be found in the final report on the project. These things have been recounted only to emphasize some of the major points that we thought might be of interest to an administrator. We trust that it will challenge each of you, as it has us, to find the most valid and expedient ways to move forward with the parents in the total milieu of American education.

IN SUMMARY

Our experience has shown the:

- need for informing parents of the basic nature and value of research. Parents have a natural disinclination to have their children used as "guinea pigs"; and they need to be assured that the experimentation has been carefully thought out, and will result in more effective learning opportunities for all children
- new opportunity for parent participation in education through the use of open-circuit television
- intense interest that most parents have in helping their children learn, but the frustrations that often result from their attempts at assistance
- significant difference parents can bring about by helping their children learn Spanish, and the carry-over of this improvement to other school subjects
- value of providing definite, clearly-defined activities for parents to engage in as they help their children. These activities will be much more meaningful and valuable if parents, help formulate and try them
- tremendous assistance that a willing and interested PTA can provide a research project. The help given by the Denver PTA was invaluable in the Denver-Stanford project
- importance of steering committees in providing direction and establishing a liaison between parents, principals, teachers, and research staff
- value and flexibility of large-scale research, with N's of thousands rather than hundreds. With high speed computers this is no more difficult to handle and analyze than smaller groups handled traditionally.

VII. WORKING WITH TEACHERS

"Why should I work at experimenting with television and teaching machines? If I do, I'm helping create monsters which will take my place." One candid teacher made this remark early in the project, and his was certainly not an isolated viewpoint. Since the invention of the printing press, and probably before, with each new invention the teacher has heard the cries of those who would do away with his job--"We'll print books and then we won't need teachers"; "We'll make instructional films and then we won't need teachers"; "We'll have television, teaching machines, language labs....." With new media thus treated (or rather, mis-treated) as teacher replacements, the flesh-and-blood teacher's suspicion of them is, consequently, not at all unnatural. When it's man versus machine, most of us recognize and are biased by an affinity for our own kind.

Some reluctance other than that related to self-preservation was also demonstrated. For example, when you mix television and teaching machines with elementary school foreign language you have moved about as far into the space age as most teachers care to go mentally, much less physically. This was especially true in 1959 when the project was being designed. That the project actually got off the ground under these conditions, with full, albeit ambivalent, cooperation stands as a special tribute to the pioneering spirit and professional integrity of Denver's teachers.

Realistically, the teachers had ample cause to avoid participation (which they didn't). Certainly the curricular and population explosion which hit the elementary schools did not leave a great deal of extra time on their hands. (This is probably the understatement of the report.) Foreign language teaching through the new media thus presented a doubly frustrating problem to them. It was something, rather discomforting per se, to be added to an already crowded and continually expanding curriculum.

In addition, the new audio-lingual method of foreign language instruction was itself a "foreign language" to most teachers. Even those whose high school and college experience was fairly recent had not received much training in actually speaking a language, and those whose training and experience was distantly removed had even less. In our country we seem to have emphasized speaking about a language rather than actually speaking it. Thus, almost unanimously, our teachers were moving into an area that was unfamiliar and thus uncomfortable. Of course there were also others who questioned whether such a program really had any potential merit, regardless of the backgrounds of the teachers.

To a limited number the idea of teaching a foreign language was not new since they had handled the follow-up lessons for the Spanish programs televised on a trial basis the previous two years; and an even smaller group had experience teaching the language without the use of TV. But for the vast majority, teaching foreign language was a new, controversial, somewhat frightening and even threatening possibility; and it was in this setting that teachers were approached regarding their potential involvement.

Yet, in spite of all of these problems, Denver's teachers listened; they asked questions; they reacted. The more time we spent with them, the more we recognized that--for the most part at least--their main objections and concerns were not self-centered. They were really more interested in what all this might do for boys and girls than what it might do to teachers. To be sure, the tensions relating to the problems mentioned above were real and disturbing, but these were not central.

Once we identified the central objections, we proceeded to deal with them. Since one of the primary objections was that there simply wasn't enough time to teach Spanish, the school day was lengthened one-half hour. Thus, two and one-half hours per week were added to the elementary school day. This meant that an additional hour was available for basic subject instruction in addition to the time required for foreign language. This move, since it also was accompanied by a salary increase, did much to eliminate the time objection.

As we worked with each group of teachers, we assured them that TV had been proven an effective teaching medium and that their role as teaching helpers did not require the proficiency in the language that would be required without TV. Also, we made it very clear that any experimental procedures would be designed with the help of teachers and based on what we knew or had been told by language experts to be effective procedures. Thus, we would be moving from good to better to (hopefully) best; and the changes would be made at frequent intervals--each semester if possible. In this way educational opportunities should be improved at least twice a year; we would be speeding up the process of improvement.

Most teachers had only a limited background in research and they naturally were more than a little concerned about the process. The term itself had somewhat of an awesome sound. One teacher remarked, "I had always thought of research in association with test tubes and white rats. And I wasn't very sure that I wanted my class or myself involved in it." Others chuckled at the quote from a magazine published at that time that said, "Some researchers use statistics like a drunk uses a street light--for support and not for illumination." We used this statement frequently to assure participants that we were looking for direction and illumination, not support for preconceived ideas. We found that anecdotes like this could be used to great advantage; they not only provided the light touch mentioned earlier but also allowed us to talk openly in some potentially sensitive areas.

The real proof of the need for research was, of course, the great divergency of opinion in the fields of television and foreign language teaching. Yet, it took a considerable amount of doing to convince all concerned that research was the best way to settle honest differences. When teachers, principals, parents, and others saw the connection between research and the improvement of instruction they began to warm up, to like the idea.

We have suggested earlier that very few of our teachers were qualified to teach a foreign language. This is precisely the reason that television was chosen as the basic instructional medium. Here, the role of the classroom teacher could be primarily a supplementary one so that proficiency in the language was not a must. Yet, we wanted as many teachers as possible to have training so that they could more adequately meet individual needs in their classes.

With this in mind, Mrs. Overman, Mr. Manzanares, and Mr. Andrade set out to recruit not only volunteers for the fall but also volunteers for a summer workshop--a five week, non remunerative, intensive emphasis on audio-lingual Spanish. As indicated earlier, our fondest expectations were exceeded when seventy-five teachers enrolled. This was truly a remarkable showing and it spoke well of the interests and insights of the Denver teachers. They saw the need and were willing to be included.

Each year, half-day inservice meetings were held for all teachers on the Saturday prior to the opening of school and the Saturday between semesters, and teachers were paid for attending these meetings. We have alluded to the initial meeting earlier, but we might go into greater detail at this time.

The meetings served many useful purposes. In retrospect, perhaps the most important was motivational. We tried always to open with a fast-moving, general session at which Dr. Oberholtzer, Dr. Hinderman, Mr. Jones, or other top-level administrators would discuss the importance of the year's activities and express appreciation for the teachers' participation. There was, and is, something motivational about being a part of something big and potentially important. Further, the average classroom teacher has very little personal contact with the Superintendent and others of his staff. Here they were provided a rather unique opportunity to see their activities as something directly affecting and considered important by the Superintendent.

After the general or informational part of the meeting, teachers were directed to smaller groups according to their research assignment. At this time, specific instructions and directions were given; materials were distributed; selected teachers demonstrated equipment, methods and techniques to be used; and, finally, questions were answered. The question and answer period was a key point in the activities and served to clarify many points covered in the general or procedural sessions. It also provided a meaningful and relatively easy way to assess the effectiveness of what had gone on before. For this to be true, of course, a permissive atmosphere--where any question, no matter how elementary, detailed, or critical it might seem, was accepted and answered honestly and sincerely--was essential. To promote such permissiveness, we always made sure that top administrators did not attend these sessions. We had found earlier that their presence inhibited free discussion.

In the earlier chapter on communication we cover some aspects that might just as easily be dealt with here. We will not go over these again in any depth, but some points bear repetition. One is that teachers wanted to know "why" as well as "what," "when" and "how." These are skilled professionals and they have a perfect right to ask these questions. Another point is that they like to have a part in developing procedures, criteria, and the like; they want to be an integral part of what is going on. A third point, which actually relates to the other two, is that teachers desired frequent communication; their effectiveness dropped whenever this step was neglected.

As Mr. Andrade and Mr. Manzanares visited the individual classes, and met with small groups in areas of the city, they were encouraged to keep the aforementioned guidelines in mind. They also continually emphasized that none of the teachers were expected to be linguistically expert; we only expected interest and effort. And, during the years, it was amazing how much of both was given. Many of the teachers made great strides with the language and teaching techniques, and almost all reported that it had been an interesting experience.

One classic example comes to mind when we discuss the interest reported by teachers. Mr. Helen Johnson was approaching retirement when she was asked to teach Spanish; her only Spanish training had occurred forty years before. Yet, she participated enthusiastically and became one of the outstanding teachers in the study. Her class was an exhilarating one to visit. She even took part in demonstrations at the large meetings.

Mrs. Johnson said upon retirement, "Teaching Spanish was just the lift I needed. If I'm not too old to learn I guess no one is. This provides added incentive for me to keep on trying new things and striving to learn even after retirement."

Now no one would suggest that Mrs. Johnson was not an unusual person and a rare teacher. However, we do not consider her so atypical, either. She represented an experienced and able educator whose main concern was the welfare of her children. When she became convinced that learning Spanish might be a worthwhile addition to their other school experiences, and that research would significantly enhance this addition, she joined in. She was an inspiration to all who worked with her.

One of the most interesting examples of what teachers can do when challenged came during the last year of the study. At the Saturday meeting before the first day of school, we asked some sixth grade teachers to volunteer for a special assignment. They were warned that it entailed more work, record keeping, and the like. Yet over fifty volunteered, and from this group seven were selected randomly.

This group's results are shown in other reports. Suffice it to say that the achievement of their pupils was so high and their own ingenuity so great that we changed the name of their group from "Special" to "Tomorrow's Classroom." They pioneered and truly blazed a trail for other teachers to follow for years to come. Yet, there were some of the seven who had never taught Spanish before the project began and one who had never had a formal Spanish course in high school or college.

These people probably provided only a glimpse of the tremendous potential represented by any group of teachers. The secret is how to realize this potential. A research study is one way, but it must involve the teachers from the outset. We're fairly sure that we would not have had fifty volunteers for such a loosely-worded and seemingly time-consuming activity the first year. We like to feel that at least part of the reason for the good feeling and willingness shown the third year was a direct result of the total effort that had gone before.

Denver's teachers are to be commended for their outstanding efforts during the years of the project. They entered into experimentation willingly, they contributed unsparingly, and they demonstrated forcibly how much the educational process depends on what happens when the individual teacher closes her door and begins to teach.

IN SUMMARY

Our experience indicates that:

- new media are not replacements for teachers; instead, they can be effective tools if their use is properly directed by a teacher
- teachers have more than enough to do already, and if still more is to be asked, the reason for doing so should be explained carefully. Needless to say, real merit must be demonstrated
- teachers are basically idealistic and their prime concern is what happens to boys and girls
- most teachers have had little or no background in research; therefore, much groundwork must be laid if an effective understanding is to be achieved
- very few teachers, especially in elementary schools, are qualified to teach an audio-lingual foreign language course and must be dependent upon television, films, or visiting teachers to do the basic instruction
- inservice meetings are essential in such a situation. These inservice meetings can be both informational and motivational; a well-planned half-day meeting, or even one of an hour's duration, can accomplish much
- the television lessons and the accompanying inservice activities allowed teachers in a relatively short time to learn a great deal about teaching Spanish and about managing and integrating new media into a meaningful program
- a group of teachers has tremendous potential. Our "tomorrow's classroom" group of seven teachers provided ample evidence of this fact.

VIII. CONCLUSION

The primary thrust of this report has been to relate some administrative aspects of the Denver-Stanford project that would not normally be included elsewhere. This seems to be an area which is rarely mentioned, much less recounted, in research reports. Thus, the foregoing chapters have been something of a pioneering attempt to tell how things were done--to relate some of the administrative procedures that we found to be important and that we feel might be profitable to others. As usual, the "why" and "with what results" are covered extensively in more technical reports--see Appendix A.

This final chapter will be somewhat of a potpourri of additional ideas that strike us as important but do not quite seem to merit separate chapters. We trust that the somewhat cursory approach and placement at the end of the report will not lead anyone to assume that these areas are not as important as what has preceded. We certainly do not intend to convey this notion. We shall shortly discuss the role of the school principals, for example, and no group has more effect on the outcome of the type of project we have described.

The principal of each school is the key person in that school. This is a well-accepted fact and little more would seem to need saying in this regard. However, at the risk of appearing pedantic, we believe some further comment in this area would be helpful.

A researcher could recognize the importance of the principal, assume that he was accounting for it in his operation, and still miss the mark completely. As indicated earlier, a principal is faced with many seemingly conflicting and legitimate demands for his teachers', pupils', and his own time, and it is this conflict that the researcher cannot ignore.

Principals, we found, needed a thorough understanding of and involvement in the project because of their unique responsibilities. In this regard, we found that the Elementary Principals' Advisory Committee could provide an invaluable service--for the project and for other principals--by assisting in all phases of project planning. Thus, we took the step beyond admitting the importance of the principals--we brought them into active participation in the project. If we needed data, for example, and the principals did not see how it could be provided without an undue hardship, we explored the alternatives together. Joint solutions were more acceptable than unilateral ones for a least two reasons: they were actually more workable and practical than they would have been otherwise, and, other things equal, a person's acceptance of an idea increases markedly when he has a part in deriving it. The principals' point of view must be sought, understood, and incorporated into the planning if success is to be achieved.

It might be well to mention here that occasionally one or more of the project staff would want to get Dr. Oberholtzer, Dr. Hinderman, Mr. Jones, or someone of high authority to write a directive; there was a more-or-less subconscious desire at such times to force conformity. Cooler heads prevailed, and a resort to arbitrary authority was never attempted, fortunately. People can be forced to modify their behavior ostensibly, but the cost is likely to be loss of rapport and of any genuine support. The battle might be won, but it's very doubtful you'd win the war.

In securing data from pupil cumulative records, for example, a point of possible conflict developed when several principals felt that their overworked clerical personnel could not do the necessary transcribing. A plan for collecting these data, derived through consultation with the Principals' Advisory Committee, called for special clerical help to be sent from the

Research Office in cases where the school office staff could not perform the required task. This workedvvery well; and, incidentally, this type of special help was required by relatively few schools. It seemed that once the schools understood the researchers' problems and realized that something unreasonable was not being requested, they exerted extra effort and got the job done. The moral here keeps recurring and should be clear to the reader by now--if people have an opportunity to see the problems clearly, to discuss themopenly, and to have a voice in determining the solutions, things work much more smoothly.

Very early in the project--in fact during the proposal writing stage--Lloid Jones, then Director of General Curriculum Services, made a suggestion that proved to be extremely valuable, especially as time passed: "If I were you," he said to the project director from Denver, "I'd find a way to visit the elementary schools and get acquainted with each principal." Mr. Johnson began to visit, and the wisdom of visiting soon became apparent. It was a beginning of the important task of establishing communication.

We soon discovered that some of our most important potential allies, some respected leaders among principals, were known to be unfavorable to either elementary school foreign language or to the research project or both. Most of these did become allies, but, like the man from Missouri, not until they were shown. One such principal--a leader by any criterion--said recently, "It's no secret I was opposed to the study at the beginning. But I have to admit now that it's one of the finest things that has happened since I've been in the Denver schools." Needless to say, this principal's value to the project was great.

If there is a moral for researchers or administrators here, it would seem to be that one should look beyond those who agree with what you're doing and establish contact with those who don't. Solicit their active participation. Then, if what you're doing has validity and is potentially good for boys and girls you'll gain converts; if it isn't, you shouldn't be doing it anyway.

To summarize, we can safely say that we came out of the study with a new appreciation for the school principal. They have a difficult job and are constantly facing often conflicting demands for the time and activities of their pupils and teachers. They made many important contributions to the project--among these was active involvement of pupils, teachers, and parents.

Another different aspect of the work, which would seem to have potential interest to administrators, is the development of the evaluative instruments, the tests. In our study we were faced with rather unusual circumstances in that no standardized or even non-standardized tests of elementary school Spanish were available. Elementary schools had taught Spanish for years, and had even taught audio-lingual Spanish for some time; yet, we could not find one test applicable to elementary school boys and girls. This presented a real challenge--to develop tests that would measure listening and speaking skills in a valid and reliable manner, that would avoid any translations, that would not involve written matter, that could be administered consistently to hundreds of classes, and that could be scored in a relatively easy manner.

Without the impetus of research, we probably would have drifted along like everyone else, that is, we would have waited for others to do the pioneering. But once the moment of truth arrived--when we received a grant to determine effective teaching procedures, something requiring careful measurement--we were forced to move forward.

After examining the literature, receiving the advice of consultants, and doing some experimentation on a small scale, we arrived at the general listening comprehension test format now used. The test is administered via TV by Mr. Manzanares, the statements are made or the questions are asked in Spanish, and the pupils respond by selecting a picture on a test form. In this way all pupils receive exactly the same instructions and have the same time to respond. Constructing this test, of course, required extensive experimentation because of timing difficulties as well as meeting acceptable statistical standards. We finally arrived at the present plan in which fifty questions and the required instructions are given in two, fifteen-minute sessions. The two parts are equivalent and use different test form sheets so that even if a pupil misses one day of the test some valid judgment of his performance is still possible. Since all questions require multiple-choice responses on an identical form, the scoring is very simple.

The speaking test was much more difficult because it required individual administration and thus was much more time consuming. We arrived at a three-minute test, administered individually to a selected sample of students, with responses recorded on a tape recorder. These tapes were then scored independently by three expert teachers and the composite scores used to evaluate the effectiveness of procedures used. This procedure worked well for research purposes, where evaluation of a representative sample was sufficient, but will not do the job where regular evaluation of all pupils is desired. The Denver schools are now experimenting with the development of a "speaking scale" similar to the familiar handwriting scales used as a part of various standardized tests. If the average teacher could have mechanical aid in administering the test, new-media, and carefully-constructedd benchmarks via recordings of some type to use as a base in evaluating it, this would seem to be a significant step forward.

Now, as has been the case for so much of what we found, these evaluative ideas sound perfectly logical. It's like "ice cream on a stick"--once someone came up with it, it seemed so obvious that the natural reaction was, "Anyone could have thought of that." This is not to say that everyone couldn't or wouldn't have come up with exactly what we did--the point is that they didn't. We learned a great deal in making the tests; also since the process of development has been published and the tests themselves are available to all, we like to believe we've helped others who are now faced with the same problems we faced a few years ago.

Another area that merits consideration is the development of our programed materials. At the time the proposal was submitted, an area of great interest but practically no evidence was teaching machines or programed instruction. Dr. Skinner had up-dated Dr. Pressey's early attempts at a tutorial machine, and extravagant claims were rampant. The project planners recognized that this was an area which might well fit into the context of instructional television, but little solid information on it was available when the proposal was submitted. Here again, once the proposal was approved we were obligated to action.

An experienced teacher of Spanish, Delbert Barcus, was chosen to head this aspect of the project and he did an outstanding job of researching the field of programed instruction and sharing his findings, not only with project personnel, but with the Superintendent's staff, subject matter supervisors, principals, and teachers. Mr. Barcus is now in charge of programed instruction for the Denver schools.

A progress report and an article dealing with this aspect of the project in greater detail have been published. What we wish to emphasize here is that anyone considering the development of programs, whether for use in a machine in textbook form, should recognize that doing it correctly requires a great deal of time--it is not an easy or inexpensive process. However, our experience has shown that programed instruction can be a valuable addition to the total teaching context, and that a carefully-developed program can do some things better than a classroom teacher--primarily because a program does not become bored with minutia in the manner of humans.

Mr. Barcus was chosen because of his blend of scholarship and patience, and fortunately it was just the blend we needed. His programed textbook, Automated Spanish, has been well received by professional programers, teachers, linguists, and--most important--by pupils themselves. Mr. Barcus feels that any teacher would benefit by writing a program, and the authors' experiences would lend credence to his premise. The very process of analyzing a segment of a course one plans to teach, building it into a bite-size, step-by-step sequence that will allow a pupil to progress at his own rate through a successful series of learning experiences is a revelation to most teachers. We definitely believe that this analysis and period of trial with various students provides a teacher with a view of the learning process that he would probably never get any other way.

Both Stanford and Denver Public School personnel unanimously report that they benefited from the experience and would welcome another such opportunity at joint research. If anything we have said would seem to belie this, we have failed in our task. We have tried to highlight some of the potential pitfalls--not to exaggerate them unduly, but rather to make the reader aware of them and of our method of overcoming them. Also, if we seem to have dwelled lengthily on the importance of interpersonal relationships in a large scale research effort, it was deliberate. If the reader is looking for one key to success, that's the one we'd want to pass along.

The French have a wise saying that we used frequently with project personnel. It is, "If every man's troubles were written on his forehead there would be no unkindness." It helped us in dealing with each other and with others, though we sometimes wanted to take time out to write on our own foreheads; and we will conclude on this note--on the spirit of understanding which must underlie any cooperative effort.

IN SUMMARY

Our experience indicates that:

- the principal is the key person in each school. A researcher should communicate with him, bring him into the planning and decision-making, seek to understand his point of view

- a researcher may be unaware of or ignore the peer leadership structure of groups, such as principals, with whom he works; instead, it is wise to identify this structure and work with it

- it may seem easier to seek out and work closely with those who support your point of view, and to ignore or do righteous battle with others. Much more is achieved in the long run by contacting those who differ, discussing points of disagreement, making any needed changes, and seeking continued active participation in project planning. This process both secures enthusiastic converts and corrects the often real difficulties on which opposition is based

- research provides an impetus for the development of tests and many other curricular needs that might otherwise be ignored or unduly postponed

- test development should involve many project participants; their participation will not only assure greater acceptance of the measuring instruments but will also improve the quality and effectiveness of them

- programed learning is an exciting and interesting field, and it seems to hold great promise as another component in the total instructional context

- the process of developing a program is most beneficial to the programer, and every teacher would undoubtedly benefit from such an experience

- most research findings sound perfectly logical, and there is usually an irresistible impulse for someone to say, "Do you mean to say you had to spend one-third of a million dollars to determine that?" (The answer of course, is, "yes.") A researcher should be prepared for this reaction; frankly, we're pleased that so many of our ~~results~~ did support our hypotheses--that they sounded logical as we presented them

- the importance of interpersonal relationships in a large-scale research effort cannot be overemphasized.

APPENDICES

APPENDIX A

Other Publications

PRECEDING PAGE MISSING

FINAL REPORT

The final, overall report on the project, now in process, will be published under the title, "The Context of Instructional Television." It will be available from either the U. S. Office of Education or the Institute for Communication Research at Stanford University.

PROJECT PROGRESS REPORTS

Report Number	Title and Date
1	A New Opportunity for Parent Participation in Education -- April 1961
2	A Two-Dimensional Covariance Analysis Program for the Datatron 205 Computer -- June 1961
3	Measurement of Listening Comprehension Via Television in Elementary School Spanish Instruction -- October 1961
4	Development of Programed Learning Materials for Use with Televised Spanish Instruction -- November 1961
5	Results of the First Year's Research in the Denver-Stanford Project -- January 1962
6	An Attempt to Measure Academic Achievement Efficiency -- March 1962
7	Reading and Writing Results in the Second Year of Research -- 1961-62 -- May 1963
8	Audio-Lingual Results in the Second Year of Research -- 1961-62 -- June 1963
9	Measurement of Speaking Skills in Elementary Level Spanish Instruction -- July 1963
10	Third Year Results in the Denver-Stanford Project -- March 1964
11	Research in Retrospect: Administrative Memoranda of the Denver-Stanford Research Project -- June 1964
12	A Further Search for Elements of Tomorrow's Classroom -- In Process
13	Causative Factors and Learning Related to Parent Participation -- In Process

ARTICLES ON THE PROJECT TO DATE

Andrade, Manuel, John L. Hayman, Jr., and James T. Johnson, Jr. "Measurement of Listening Comprehension in Elementary-School Spanish Instruction." The Elementary School Journal. 45:6 (November 1963), pp. 84-93.

Barcus, Delbert, John L. Hayman, Jr., and James T. Johnson, Jr. "Programing Instruction in Elementary Spanish." Phi Delta Kappan. 44:6 (March 1963), pp. 269-272

Hayman, John L., Jr., and James T. Johnson, Jr. "Exact vs. Varied Repetition in Educational Television." Audio-Visual Communication Review. 11:4 (July-August 1963), pp. 96-103

Hayman, John L., Jr., and James T. Johnson, Jr. "Parents Help Educate Their Children through Instructional Television." The Journal of Experimental Education. 32:2 (Winter 1963), pp. 175-180.

Hayman, John L., Jr., and James T. Johnson, Jr. "Research on the Context of Instructional Television." School Life. 45:6 (April 1963), pp.8-11.

Hayman, John L., Jr., "Viewer Location and Learning in Instructional Television." Audio-Visual Communication Review. 11:3 (May-June 1963), pp. 27-31.

APPENDIX B

Organizational Structure of the Title VII Project

Title VII Project: Four Years of Research on the Context of Instructional Television

Organizational Structure

Scope of Operation: Direction-Setting

Committees on this level are directly responsible to the Principal
Investigators: Dr. Kenneth Oberholtzer, Superintendent, DPS
Dr. Wilbur Schramm, Director, Stanford University's
Institute of Communication Research

Title VII Advisory Committee to Principal Investigators

Coordinating Committee for DPS Superintendent

Central Steering Committee for Denver Participants

Scope of Operation: Planning for Implementation (Citywide)

Committees on this level are generally responsible for purposes of this project to the DPS Administrative Director of Elementary Instruction and/or the President of the Denver County Council of PTA

*Elementary Pri TV Committee

*Advisory Committee

Committee

*Foreign Language Curriculum Committee

Project Inservice Education Committee

*Area Elementary Committee on Instruction

*Elementary Coordinators

PTA Project Steering Committee

PTA Interviewers

*Superintendent's Advisory Council

*Elementary Principals

Scope of Operation: Local Adaptation - Application

Committees on this level are generally responsible to the elementary principal of the local school and/or to the local PTA president or local chairman of the PTA Title VII Project Committee

Title VII PTA Building Steering Committee

*Local PTA Board of Managers

*Foreign Language Teachers

*Faculty Committee on Instruction

*Regular standing committees of the Denver Public Schools used as a channel for project business related to the general area of their responsibility.

Title VII Project: Four Years of Research on the Context of Instructional Television

Organizational Structure

Scope of Operation: Direction-Setting

Committees on this level are directly responsible to the Principal Investigators: Dr. Kenneth Oberholtzer, Superintendent, DPS
Dr. Wilbur Schramm, Director, Stanford University's Institute of Communication Research

Title VII Advisory Committee to Principal Investigators

Coordinating Committee for DPS Superintendent

Central Steering Committee for Denver Participants

Scope of Operation: Planning for Implementation (Citywide)

Committees on this level are generally responsible for purposes of this project to the DPS Administrative Director of Elementary Instruction and/or the President of the Denver County Council of PTA

*Elementary Principals' TV Committee

*Elementary Curriculum Advisory Committee

Pilot Study Committee

*Foreign Language Curriculum Committee

Project Inservice Education Committee

*Area Elementary Committee on Instruction

*Elementary Coordinators

PTA Project Steering Committee

PTA Interviewers

*Superintendent's Advisory Council

*Elementary Principals

Scope of Operation: Local Adaptation - Application

Committees on this level are generally responsible to the elementary principal of the local school and/or to the local PTA president or local chairman of the PTA Title VII Project Committee

Title VII PTA Building Steering Committee

*Local PTA Board of Managers

*Foreign Language Teachers

*Faculty Committee on Instruction

*Regular standing committees of the Denver Public Schools used as a channel for project business related to the general area of their responsibility.

APPENDIX C

Activities During the Early Phases of the Project

1959

January and February	• A rough draft of a possible research project under NDEA Title VII was prepared.
March	• A meeting of officials of the Denver Public Schools, St. Louis County Public Schools, Stanford University, and the National Educational Television and Radio Center was held in Denver. • As a result of this conference the Denver Public Schools and the Institute for Communication Research of Stanford University agreed to prepare a joint research project proposal to be submitted to the U. S. Office of Education for the consideration of the Title VII Reviewing Committee • Dr. Wilbur Schramm agreed to prepare the first draft of the joint proposal to be titled "Four Years of Research on the Context of Instructional Television."
April	• Both institutions prepared the tentative budgetary needs related to such a project. • Dr. Schramm prepared the first draft of the proposal.
May	• A second draft of the proposal incorporating suggested changes from personnel of both institutions was presented. • A meeting was held with the Elementary Principals' Educational TV Committee to explain the tentative Project and to get the opinions and suggestions related to it.
June	• Revised budgets were prepared and incorporated into the proposal. • The proposal was then sent to the U. S. Office of Education in Washington, D. C.
August	• Meetings were held by the administrative officials of the Denver Public Schools to plan the year's activities should the project be approved.

1959

September

- Denver personnel did extensive library research on all aspects of television, foreign language instruction, and teaching machines.

October

- The project was described in detail to the five Elementary Instruction Committees, the Junior High School Instruction Committee, and the Senior High School Instruction Committee.
- It was also presented to the elementary principals at their meeting.
- A planning meeting with the Elementary Principals' Educational Television Committee was also held.

November

- We were informed by Dr. C. Walter Stone of the U. S. Office of Education that the Title VII Reviewing Committee had expressed an interest in our project subject to suggested changes.
- Dr. Stone held separate re-negotiation meetings with officials of both institutions.

December

- Mutually satisfactory changes were made in the proposal and it was resubmitted to the U. S. Office of Education.
- A meeting was held with the Elementary Foreign Language Committee to explain the project and get reactions to it. (The committee was made up of experienced foreign language teachers, a coordinator, a principal, and the foreign language supervisor.)

1960

January

- Meetings were held with the Elementary Principals' Educational Television Committee and later with all principals to explain developments and answer questions related to the project.

February

- The project was presented to the Superintendent's Instructional Council.
- Soon after this we received the information from the U. S. Office of Education that our project had been approved.
- We then began to make specific plans and released the first information about our project to the public.
- George Scherer of the University of Colorado began service as a foreign language consultant.

March

- A meeting was held with Dr. Schramm and his associates from Stanford in order to plan future activities related to the project
- Title VII personel moved into the research office.
- The first out-of-state consultant, Theodore Andersson of the University of Texas, met with the project personnel and groups of teachers to assist in the initial planning of the project.
- The PTA President and First Vice President met with Dr. Oberholtzer and members of his staff; the project was presented to them, and the PTA was invited to participate.

April

- Meetings were held with all elementary principals, the Elementary Principals' Television Committee and the five smaller elementary principals' groups (representing each high school area).
- Dr. Schramm returned and another planning session was held.
- Some of the Denver personnel attended the regional Title VII meeting held in Boulder, Colorado, at which Dr. Oberholtzer was a featured speaker.

1960

April

- Dr. Faye Bumpass of Texas Tech and Dr. Carlos Rivera of the El Paso Public Schools, foreign language consultants, served two days each to assist us in our planning.
- John Hayman arrived from Stanford to serve as Project Director for Stanford University.
- The project was presented to the PTA Executive Committee and they voted to accept the invitation to work with the schools.
- A PTA Title VII Steering Committee was appointed to help coordinate the PTA's part in the project.
- The project was then presented to the principals and the PTA presidents at the Superintendent's Advisory Council Meeting. (At this time each school was asked to indicate its possible interest in providing a group of parents to participate in the research.)
- Approval was received from the PTA Board of Managers to present the project to the total PTA group at the County Council luncheon in May.
- A committee of teachers began to prepare the scope and sequence of the Level I Spanish.

May

- Dr. Oberholtzer and Mrs. Miller, President of the Denver County PTA, presented the Title VII Project to the PTA Council. (They voted unanimously to sponsor the Title VII Research Project.)
- Research project personnel attended many PTA meetings in order to explain the project and answer questions about it.
- Each school was contacted to determine whether they could provide a group of parents to participate under group 6 of the research, the procedure involving parents. (Thirty-six groups with approximately 1200 families were found.)
- The first experiment in the project was conducted to determine the most effective method of teaching Spanish over television
- The committee of teachers which had been working on Spanish content completed the units for the first semester of the program.

1960

May

- The producer-writer and television teacher began to build individual lessons from these units to be videotaped during the summer.

June

- The first sixteen lessons were videotaped and were reviewed by Denver personnel.
- The content of the Teacher's Handbook was prepared and sent to the consultants for their approval.
- John Hayman began programing the Datatron 205 high speed computor for the analysis of the covariance statistical treatment for the May experiment.
- An eight week workshop for elementary school foreign language teachers was begun under the joint sponsorship of Denver University, the Colorado State Department of Education and the Denver Public Schools. (Seventy-five teachers enrolled in the Spanish section of this workshop.)

July

- Fifteen lessons were videotaped, the workshop continued, and the first eighteen lessons were reviewed by Dr. Rivera and the reviewing committee.
- John Hayman continued his work in programing the Datatron for the analysis of covariance treatment of data to be used during the study.

August

- The workshop was completed.
- Seventeen lessons were videotaped.
- Phonograph records for home practice use were prepared.
- A two day conference was held to begin planning the programing of Spanish for the teaching machines. (The leaders of the conference were Dr. Schramm and Dr. Lumsdaine of UCLA.)
- A PTA hanbook relating to Title VII activities and procedures was completed.

September

- The PTA Title VII handbook was explained and copies were given to each school's principal and PTA president at the annual School of Instruction meeting.

1960

September

- A Saturday inservice meeting was held for the 190 Spanish teachers at which time detailed instructions were given to prepare the teachers for the procedures to be followed in their research assignment. (Elementary school principals and coordinators also attended this meeting.)
- The telecasting of lessons and the related research activities were begun.
- Project personnel attended many PTA meetings to explain the project to parents.
- Instruction Committees were brought up-to-date on the project by project personnel.
- Dr. Rivera and the reviewing committee reviewed the next twenty videotaped lessons.

October

- The Title VII Coordinating Committee met.
- A special meeting was held with all school PTA Title VII Chairmen to discuss progress to date and to review suggested procedures for the year.
- A meeting was held with elementary principals to report progress and discuss problems encountered.
- Tentative plans for second semester were made.
- The mid-term test was developed.

November

- Project personnel met with the Elementary Principals' Educational TV Committee
- Title VII progress was reported at the PTA Presidents' Round Table meeting
- The mid-term test was tried experimentally, revised, and printed.
- Inservice meetings were held for all teachers.

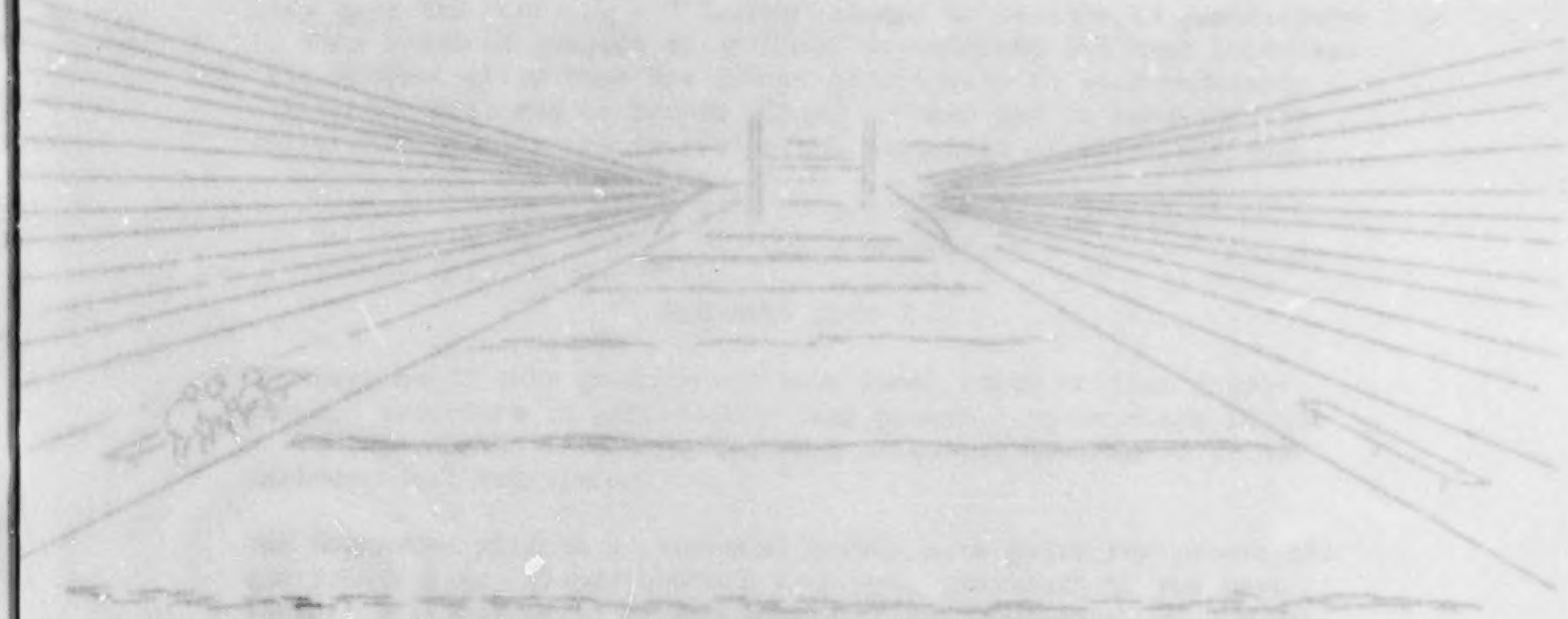
December

- The mid-term test was administered and analyzed.
- Dr. Schramm visited Denver and met with the Title VII Coordinating Committee. At this time plans were made for second semester research procedures and activities.

SUGGESTED OPERATIONAL OUTLINE FOR ELEMENTARY STEERING COMMITTEES

TITLE VII RESEARCH PROJECT

THEME: OUR GOAL IS STILL AHEAD



APPENDIX D

Suggested Operational Outline Prepared by the PTA

A Message from the President of Denver County Council of P. T. A.

DENVER THE FIELD

Last year the Denver Public Schools and Stanford University received jointly a grant of approximately $500,000 under the National Defense Education Act for research to determine the most effective method of using instructional television. Spanish was selected as the research subject area and this year classes will be conducted at the fifth and sixth grade levels. Since educational television is used in teaching and the program can be viewed at home as well as in school, parents have the unusual opportunity to participate more actively in their child's learning.

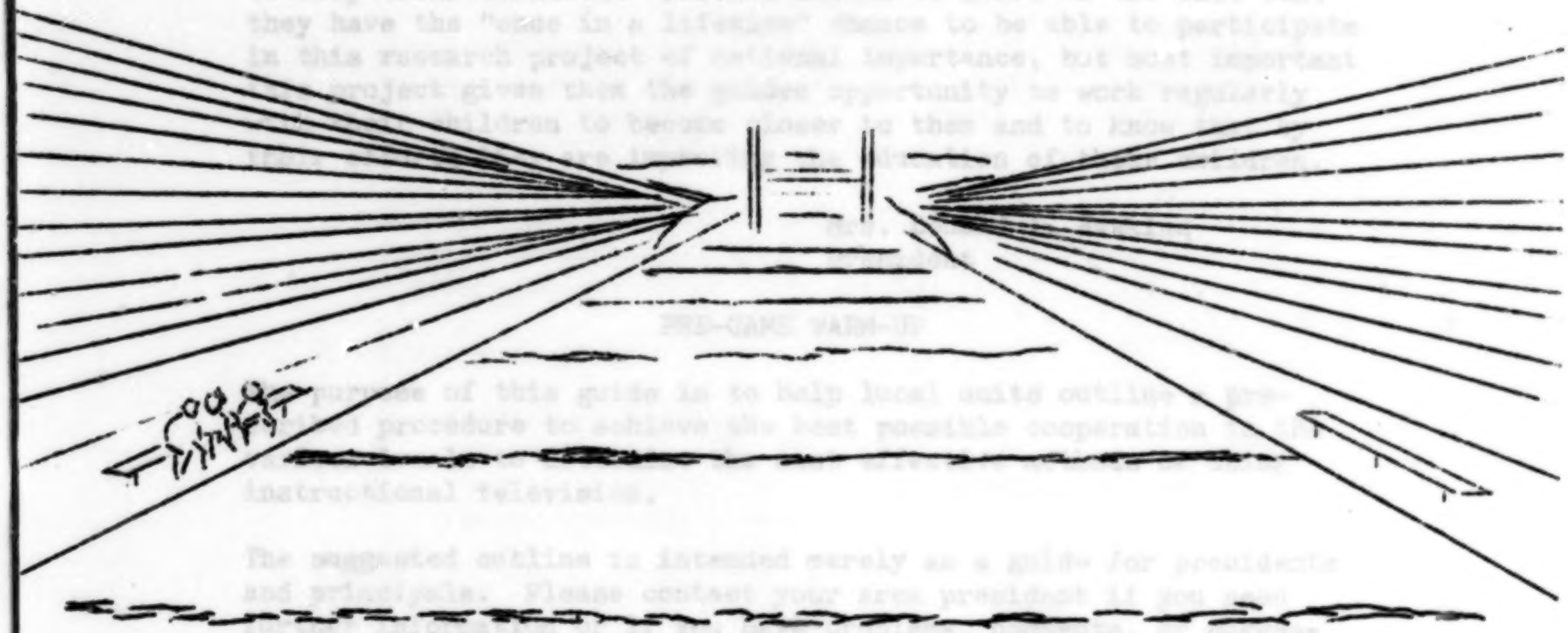
The keynote of the first year's research has been cooperation. The elementary school principals and teachers, the P.T.A., officers and committees, the fifth grade parents and pupils have cooperated in an outstanding manner.

It is most important that the parents who participated last year be aware of the excellent contribution they have made to this program. These parents willingly gave the time necessary to help their children achieve in this Spanish program, and also faithfully followed the "rules of the game" in order to complete the research. Every parent should know that his help has been most beneficial to the increased learning of his child, and that the child needs and is depending upon his parent's help again this year.

SUGGESTED OPERATIONAL OUTLINE FOR ELEMENTARY STEERING COMMITTEES

TITLE VII RESEARCH PROJECT

THEME: OUR GOAL IS STILL AHEAD



A Message from the President of Denver County Council of P. T. A.

SURVEY THE FIELD

Last year the Denver Public Schools and Stanford University received jointly a grant of approximately $300,000 under the National Defense Education Act for research to determine the most effective method of using instructional television. Spanish was selected as the research subject area and this year classes will be conducted at the fifth and sixth grade levels. Since educational television is used in teaching and the program can be viewed at home as well as in school, parents have the unusual opportunity to participate more actively in their child's learning.

The keynote of the first year's research has been cooperation. The elementary school principals and teachers, the P.T.A., officers and committees, the fifth grade parents and pupils have cooperated in an outstanding manner.

It is most important that the parents who participated last year be aware of the excellent contribution they have made to this program. These parents willingly gave the time necessary to help their children achieve in this Spanish program, and also faithfully followed the "rules of the game" in order to complete the research. Every parent should know that his help has been most beneficial to the increased learning of his child, and that the child needs and is depending upon his parent's help again this year.

The fifth grade parents are most fortunate in that the "rules of the game" do not restrict parent participation to a certain group but that all parents of fifth graders will be given the opportunity to help their children. Parents should be aware of the fact that they have the "once in a lifetime" chance to be able to participate in this research project of national importance, but most important this project gives them the golden opportunity to work regularly with their children to become closer to them and to know that by their efforts they are improving the education of their children.

Mrs. Donald A. Hawkins
President

PRE-GAME WARM-UP

The purpose of this guide is to help local units outline a prescribed procedure to achieve the best possible cooperation in the various locals to determine the most effective methods of using instructional television.

The suggested outline is intended merely as a guide for presidents and principals. Please contact your area president if you need further information or if you have problems, comments, or suggestions regarding the Title VII Research Project.

Area Presidents

Mr. Richard Ota (Bryant-Webster) North
3356 Shoshone St. GE 3-5701

Mrs. James Sanders (Gilpin) Manual
2529 California St. MA 3-0025

Mrs. Edmund Noel (Barrett) East
2601 Adams St. FR 7-9265

Mrs. Richard Lanz (Knight) South
1101 S. Jackson St. SK 6-4736

Mr. A. J. Heister (Univ. Park) Jefferson
2535 S. Clayton St. PE 3-7355

Mrs. Neil Smith (Schenck) Lincoln
1693 S. King St. WE 5-2968

Mrs. Walter Bachus (Valverde) West
615 S. Quivas St. WE 5-0466

Mrs. Gilbert Golding (Montclair) Washington
745 Olive St. FL 5-0587

TEAM ORGANIZATION AND RESPONSIBILITIES

A. Organize local school steering committees

1. Suggested committee members: Principal, Spanish teacher or teachers, fifth and sixth grade parents representing each class, Parent Education Chairman, Vice President, President, T.V. Chairman, Audio-visual Chairman

   Some schools will have more groups than others, in which case it is suggested local steering committees work out a plan best suited to their needs.

2. Elect a chairman to

   a. preside at meetings
   b. act as liaison
   c. compile a master list of participating parents (name, address, phone)

3. Elect a recorder to

   a. keep minutes of committee and parent meetings
   b. aid the chairman

B. Responsibilities

1. All direct contact with participating parents should be made by members of the local steering committee.

2. Each parent member of the local school steering committee should be assigned an equal number of participating parents from the master list for telephone contact, distribution of materials, collection of Viewing and Practice Calendars (V-P Calendars).

   a. To provide for participating parents an opportunity to communicate any reactions they may have regarding their experience in this project

   b. To provide information for new parents entering this project

   c. To motivate participants periodically to follow their assigned procedure

RULES OF THE GAME

Level I -- Fifth Grade

All Level I Spanish pupils will:

- View the in-school TV lessons on Mondays, Wednesdays, and Fridays (12:45 - 1:00)
- Receive audio-lingual classroom instruction following the TV lessons on Mondays, Wednesdays, and Fridays (1:00 - 1:15)

The four Level I Spanish research procedures are:

1. Classroom practice -- no evening viewing
2. Classroom practice plus electronic aids -- but no evening viewing
3. Classroom practice plus evening viewing at 7:00 o'clock
4. Classroom practice plus electronic aids plus evening viewing at 7:00 o'clock

This year any fifth grade parent may volunteer to participate. There is no minimum number required within a group as there was for Group 6 last year, and it is hoped that every Level I Spanish Class in the city will have participating parents. Thus, pupils whose parents are participating will be in the same classes as those whose parents are not participating. Naturally, as pupils whose parents are participating are assigned to a group with "no evening viewing," it is understood that they will view in the evening with their parents while the other children in the group will be encouraged not to watch the evening telecast.

No specific grouping of pupils according to parents participating is necessary or advised. Pupils whose parents are participating will be identified to the Title VII Office by the individual schools. Thus, the research relating to the value of parent participation may be carried on without grouping changes.

RULES OF THE GAME

Level II -- Sixth Grade

All Level II Spanish pupils will:

- View the in-school TV lessons on Tuesdays and Thursdays (12:45 - 1:00)
- Receive audio-lingual classroom instruction following the TV lessons on Tuesdays and Thursdays (1:00 - 1:15)
- Be encouraged to view the TV lessons again in the evening on Tuesdays and Thursdays (7:00 - 7:15)
- Receive reading instruction on Wednesdays (12:45 - 1:15)

The six Level II Spanish research procedures are:

1. Classroom practice
2. Classroom practice plus automated reading and writing
3. Classroom practice plus teacher directed reading and writing
4. Classroom practice plus electronic aids
5. Classroom practice plus electronic aids plus automated reading and writing
6. Classroom practice plus electronic aids plus teacher directed reading and writing.

Parents who participated in Group 6 last year will be encouraged to continue their participation this year. No new parents may be added, so it is very important that a large percentage of last year's Group 6 parents continue their participation this year in Level II. No grouping changes are necessary or advised.

The six procedures listed above identify the different methods of classroom teaching and practice to be used this year. Groups of participating parents will be assigned to each one of these procedures.

SUGGESTED AGENDA FOR MONTHLY MEETINGS FOR FIFTH AND SIXTH GRADES

SEPTEMBER

A. Local School Steering Committee Meeting

1. To plan agenda for parent meeting
2. To discuss advisability of separate or combined fifth and sixth grade parent meetings
3. To discuss method of distributing records, manuals, etc.
4. To obtain from school a complete list of Title VII participating parents. Information needed: name, grade, address, telephone number, parent's name, research group
5. Assign from this master list an equal number of parents to each P.T.A. committee member for personal contact

B. Parent Meeting

1. Background of Title VII Research Project and value of parent participation
2. Explanation of research group assignments
3. Emphasize the importance of following research pattern within assigned group
4. Distribute records, manuals, etc., to participating parents
5. Stress the importance of reading and following the directions in the Parents' Handbook
6. Stress importance of maintaining accurate records for research data

NOVEMBER

A. Local School Steering Committee

1. A report of comments received by committee members from their assigned participating parents
2. Discussion of problems and progress to date
3. A November parent meeting is optional; should one be necessary, plan the agenda

B. Parent Meeting (optional)

JANUARY

A. Local School Steering Committee Meeting

1. Plan agenda for parent meeting
2. Evaluation of first semester. Please send written report to your area president immediately following January parent meeting
3. This report should include problems encountered, suggestions from parents, any comments in regard to this program. Please let us know if the local steering committee guide has been of assistance to you and give suggestions you may have to improve the guide.

B. Parent Meeting

1. Collect V-P Calendars of first semester
2. Discuss progress to date
3. Distribute new records, manuals, etc.
4. Information regarding possible regrouping

MAY

A. Outgoing Local School Steering Committee is responsible for

1. Collecting V-P Calendars from participating parents
2. Returning to chairman all materials regarding Title VII Research Project.

B. In-Coming Local School Steering Committee

1. Conducts May parent meeting
2. Informs fourth-grade parents of project
3. Recruits parent participation

Note: Resource people will be available through the following offices:

Division of Curriculum Services - AM 6-2255
Title VII Research Office - CH 4-8899

APPENDIX E

Television and Classroom Teaching Schedule for the Second and Third Years

TELEVISION AND CLASSROOM TEACHING SCHEDULE FOR THE SECOND AND THIRD YEARS

AFTERNOON SCHEDULE

	Monday	Tuesday	Wednesday	Thursday	Friday
Level I (5th grade) 12:45-1:15	15 minute TV 15 minute audio-lingual practice		15 minute TV 15 minute audio-lingual practice		15 minute TV 15 minute audio-lingual practice
Level II (6th grade) 12:45-1:15		15 minute TV 15 minute audio-lingual practice	30 minute reading & writing period	15 minute TV 15 minute audio-lingual practice	

EVENING SCHEDULE

	Monday	Tuesday	Wednesday	Thursday	Friday
Level I 7:00-7:15	15 minute TV		15 minute TV		15 minute TV
Level II 7:00-7:15		15 minute TV		15 minute TV	

APPENDIX F

Example of Agenda for Inservice Meeting

DENVER PUBLIC SCHOOLS
Division of Instructional Services
Department of General Curriculum Services
1962 - 1963

Meeting of Sixth Grade Spanish Teachers
Saturday, September 8, 1962, 8:30-11:30
Auditorium, North High School
Genevieve Overman, Chairman

AGENDA

FIRST SESSION REMARKS

Speakers

. Lloid B. Jones
. John L. Hayman, Jr.
. James T. Johnson, Jr.

Coffee Break

SECOND SESSION

Specific Information - Reading Instruction

Groups 2-7 - [illegible] Lunchroom

Leaders.............John Hayman, James Johnson

Groups 1 & 8 - Teacher Directed Instruction -- Vocal Music Room

Leaders.............Manuel Andrade, Delbert Barcus

THIRD SESSION

Specific assistance with group assignment

Group 1...Vocal Music Room
John Hayman

Group 2...Room 102
Robert Roush

Group 3...Room 104
Sue Oursler

Group 4...Room 106
Grover Jacobs

Group 5...Room 126
Delbert Barcus

Group 6...Room 120
Glen Annis, Genevieve Overman

Group 7...Room 118
Mary-Nelle Ryan, Genevieve Overman

Group 8...Lunchroom
James Johnson

New Teachers....................................Community Room
Manuel Andrade

DENVER PUBLIC SCHOOLS
Division of Instructional Services
Department of General Curriculum Services
1962 - 1963

Meeting of Sixth Grade Spanish Teachers
Saturday, September 8, 1962, 8:30-11:30
Auditorium, North High School
Genevieve Overman, Chairman

AGENDA

FIRST SESSION REMARKS

Speakers

- Lloid B. Jones
- John L. Hayman, Jr.
- James T. Johnson, Jr.

Coffee Break

SECOND SESSION

Specific Information - Reading Instruction

Groups 2-7 - Automated Instructional Devices -- Lunchroom

Leaders............John Hayman, James Johnson

Groups 1 & 8 - Teacher Directed Instruction -- Vocal Music Room

Leaders............Manuel Andrade, Delbert Barcus

THIRD SESSION

Specific assistance with group assignment

Group 1..Vocal Music Room
John Hayman

Group 2..Room 102
Robert Roush

Group 3..Room 104
Sue Ouraler

Group 4..Room 106
Grover Jacobs

Group 5..Room 126
Delbert Barcus

Group 6..Room 120
Glen Annis, Genevieve Overman

Group 7..Room 118
Mary-Nelle Ryan, Genevieve Overman

Group 8..Lunchroom
James Johnson

New Teachers.....................................Community Room
Manuel Andrade

APPENDIX G

Example of a Form Used to Secure Information About Individual Pupils

LEVEL I SPANISH

DATA FORM

Please complete all items if possible. Place an X in the appropriate space if the information requested is not available. Numbers in parentheses refer to item number on the Pupil Cumulative Record.

Student ______________________ School ______________________

Spanish Teacher ______________________ Most Recent I.Q. (18-22) ______________

If the I.Q. given above is not the Fall, 1961, Kuhlmann-Anderson score, please circle the appropriate answers at right.

Grade when test was taken: 2nd 3rd 4th

Type of test: Otis H-N Binet K-A

Stanford Achievement Test Grade Placement Scores (18-22)

Score		Fall 1961 Results
Paragraph Meaning	(PM)	________
Word Meaning	(WM)	________
Spelling	(SP)	________
Language	(L)	________

Report Card Marks of Academic Achievement (24)

Subject	Grade 3		Grade 4	
	Semester 1	Semester 2	Semester 1	Semester 2
English				
Reading				
Spelling				
Arithmetic				
Social Studies				

THIS FORM SHOULD BE RETURNED TO THE TITLE VII
OFFICE NO LATER THAN DECEMBER 8, 1961

APPENDIX H

Example of Communication of Results to Parents, Teachers and Principals

TITLE VII RESEARCH PROJECT

First Semester Procedures and Results

LEVEL I

All Level I Spanish pupils:

- Viewed the in-school TV lessons.
- Received eclectic classroom instruction following the TV lessons.

Some Level I Spanish pupils:

- Viewed the TV lessons again in the evening (without parent help).
- Viewed the TV lessons again in the evening (with parent help).
- Used electronic aids in the classroom.

First Semester results indicate that:

- The average test score this year for all fifth grade pupils was about the same as the average score of the best group last year.
- Pupils with parent help performed significantly better than those without parent help.
- A second viewing at night (without parent help) had no effect.
- Use of electronic aids had no effect.

LEVEL II

All Level II Spanish pupils:

- Viewed the in-school TV lessons.
- Received eclectic classroom practice.
- Were encouraged to view the TV lessons again in the evenings (with or without parent help).

Some Level II Spanish pupils:

- Had parent help.
- Had reading and writing by the automated method.
- Had reading and writing by the teacher-directed method.
- Used electronic aids in the classroom.

First Semester Procedures and Results -- LEVEL II (Cont'd)

First semester results indicate that:

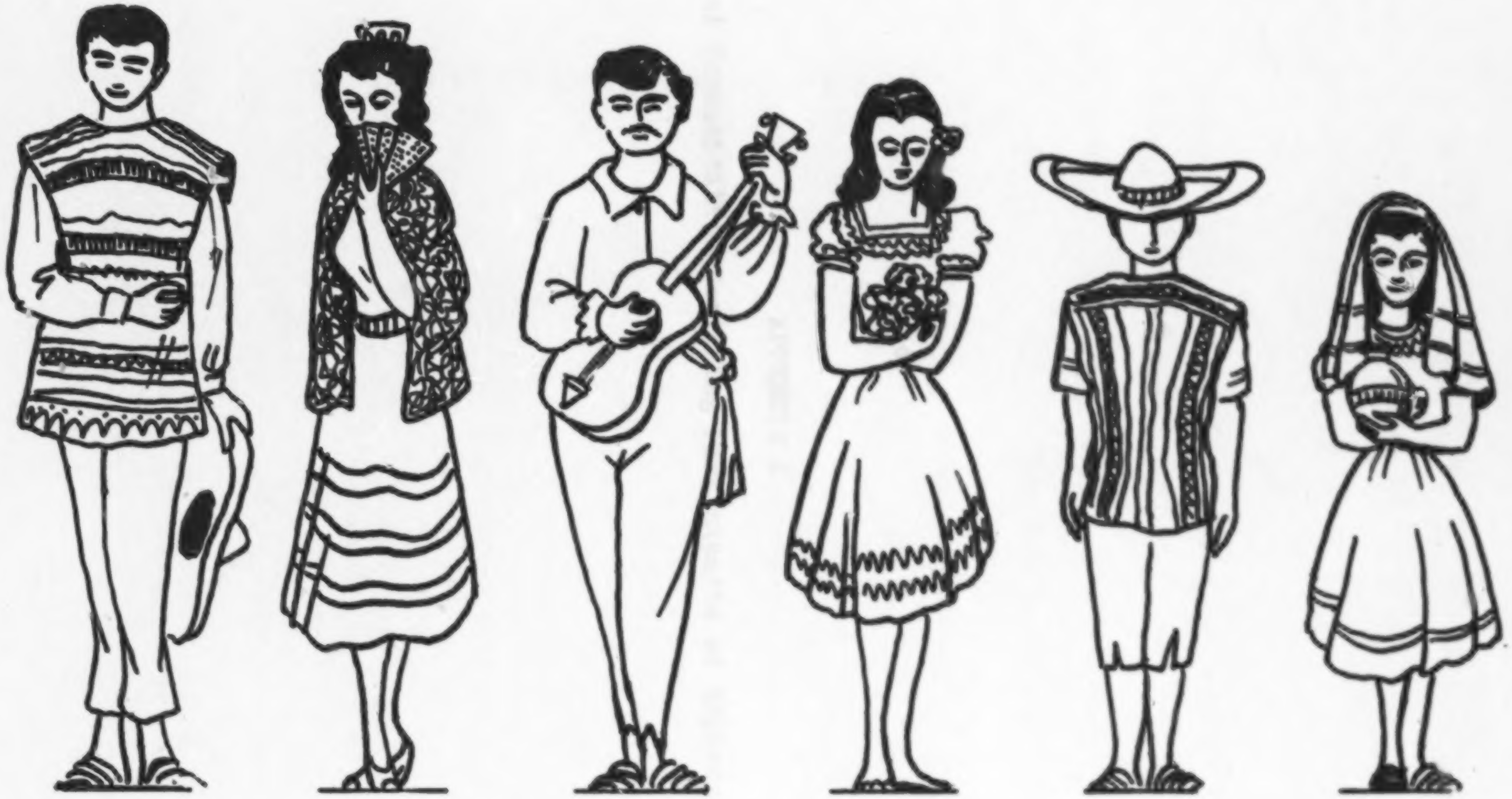
- Pupils with parent help performed significantly better than those without parent help.
- Pupils with reading and writing performed better on both listening comprehension and speaking tests than those without reading and writing.
- Pupils with teacher-directed reading and writing performed better on reading and writing tests than pupils who used the automated method.
- Electronic aids were effective with pupils whose classroom teacher was well-trained in Spanish; electronic aids were not effective for other pupils

The fourth and fifth grade report card marks on all academic subjects were obtained. These marks were then averaged to provide a fourth grade academic average and a fifth grade academic average for each sixth grade pupil.

A comparison between these averages showed that the:

- Academic averages of those with parent help increased from fourth to fifth grade.
- Academic averages of those without parent help decreased from fourth to fifth grade.
- Difference between pupils with parent help and those without parent help was highly significant.

PICTORIAL REPRESENTATION OF FIRST YEAR, FIRST SEMESTER RESULTS



Research Activity	Eclectic Practice	Structured Practice	Dialogue Practice	Parent Help	TV Twice	TV Once
Mean Score on 50-Item Test	(38.8)	(38.5)	(37.5)	(35.5)	(33.1)	(30.5)

DENVER PUBLIC SCHOOLS

INTERDEPARTMENTAL COMMUNICATION

To Spanish Teachers and Elementary School Principals

From James T. Johnson, Jr.

Date August 29, 1962

Subject Reminder of Important Title VII Project Dates in September

Saturday, September 8	Sixth grade Spanish teachers' in-service meeting (8:30 - 11:30, North High School Auditorium)
Monday, September 10	First day of fifth grade Spanish (No television -- Suggested lesson plan will be sent to each teacher)
Tuesday, September 11	First day of sixth grade Spanish (No television -- Completion of Sixth Grade Enrollment Forms)
Wednesday, September 12	Second day of fifth grade Spanish (No television -- Completion of Fifth Grade Enrollment Forms) Second day of sixth grade Spanish (Special pretest will be televised, 12:55-1:10 -- Instructions and answer sheets will be sent to each teacher)
Thursday, September 13	Third day of sixth grade Spanish (Special phonics lesson -- Lesson 1 -- will be televised, 12:45-1:15 -- Instructions and lesson sheets will be sent to each teacher)
Friday, September 14	Third day of fifth grade Spanish (Special pretest will be televised, 12:55-1:10 -- Instructions and answer sheets will be sent to each teacher)

PROJECT DATES (Cont'd) -- Page 2

Monday, September 17 through Thursday, September 27	Fifth grade Spanish teachers in-service meetings by geographical areas (4:15-5:00 -- Details will be forthcoming)
Monday, September 17	Fifth grade television lessons begin (12:45-1:00) -- Evening lessons begin (7:00-7:15)
Tuesday, September 18	Sixth grade special phonics lesson -- Lesson II -- will be televised (12:45-1:00) -- Cultural broadcast for family viewing (7:00-7:15)
Thursday, September 20	Sixth grade special phonics lesson -- Lesson III -- will be televised (12:45-1:00) -- Special broadcast for family viewing (7:00-7:15)
Tuesday, September 27	Sixth grade television lessons begin (12:45-1:00) -- Evening lessons begin (7:00-7:15)

APPENDIX J

Example of Communication to PTA and Principals

SUPERINTENDENT'S ADVISORY COUNCIL
May 4, 1962

Principal's Checklist

1. Make Tentative Assignment of Teachers for 1962-63 Foreign Language Classes
2. Complete Title VII Form for Principals (attached)
3. Recruit Teachers for Foreign Lanugage Summer Workshop
4. Explain to Faculties How General Level of Spanish Instruction Has Been Improved Through Title VII Research Activities
5. Explain to Teachers that Procedures Are Being Compared--Not Teachers
6. Provide Any Assistance Requested by PTA on Checklist Items (below)

PTA Checklist

1. Return Viewing-Practice Calendars
    - Tan (5th grade)
    - Green (6th grade)
2. Suggested May Meetings
    - Fifth and sixth grade parent participants
    - Fourth grade parents
3. Recruit Parents for Next Year
    - Keep as many of this year's fifth grade parents as possible
    - Secure as many of this year's fourth grade parents as possible
    - Report results to principal for his report
4. Organize Local Steering Committee
    - Refer to "Title VII Guide--Local School Steering Committee" (brown book)

Special Title VII Activities

May 7 - 10	TV Presentation Experiment (fourth graders--34 schools)
May 10 and 11	TV Presentation Experiment -- Individual Oral Testing (fourth graders--8 schools)
May 14 - 25	Interviews of 200 Selected Fifth Grade Parents by Twenty PTA Interviewers
May 21 - June 1	Interviews of 200 Selected Fifth Grade Pupils by Title VII Personnel
May 23	Level II Written Test by Spanish Teachers (Procedures 1a, 1b, 4a, and 4b)
May 28 and June 1	Level I TV Listening Comprehension Test
May 29 and 31	Level II TV Listening Comprehension Test
June 6	Level II Written Test by Spanish Teachers (All Procedures)
June 4 - 7	Reminder -- No TV Lessons This Week

APPENDIX K

Example of Communication to Parents' Selected for Interviewing

SAMPLE

DENVER PUBLIC SCHOOLS
ADMINISTRATION BUILDING
414 FOURTEENTH STREET
DENVER 2, COLORADO
KENNETH E. OBERHOLTZER, SUPERINTENDENT

May 9, 1962

Mr. and Mrs. Howard A. Smith
499 Treadmore Street
Denver 16, Colorado

Dear Mr. and Mrs. Smith:

As you probably know, the Denver Public Schools and Stanford University have received a grant from the U. S. Office of Education to determine the most effective ways of using instructional television and other new aids to teach Spanish to fifth and sixth grade boys and girls. As parents of a fifth grade pupil who is participating in the study, we're sure that you have a special interest in the project.

We have a great deal of information about the students and their teachers, and their attitudes and opinions toward the ways by which they have learned Spanish. Now, we need to gather the opinions of some parents to complete [illegible] this year.

[illegible] viewed. During the next few days, a PTA volunteer will call you to make an appointment at your convenience. She will come to your home and will ask you a few questions about the Spanish program and its related activities. What you say will become a very essential part of our study, and your personal views will be treated as confidential information. The interviewer will have a card which will identify her.

The Title VII Project has been sponsored by the Denver County Council of Parent-Teacher Associations, and parents have played a vital role in the planning and on-going activities to date. Your opinions are very important as they will provide an additional basis for evaluating and improving the educational experience of our children.

Thank you for arranging to see the PTA interviewer when she calls.

Sincerely,

Tommy Goodman

Mrs. Manuel Goodman
President, Denver County Council
of Parent-Teacher Associations

Kenneth E. Oberholtzer

Kenneth E. Oberholtzer
Superintendent of Schools

S A M P L E

DENVER PUBLIC SCHOOLS
ADMINISTRATION BUILDING
414 FOURTEENTH STREET
DENVER 2, COLORADO
KENNETH E. OBERHOLTZER, SUPERINTENDENT

May 9, 1962

Mr. and Mrs. Howard A. Smith
499 Trentmore Street
Denver 16, Colorado

Dear Mr. and Mrs. Smith:

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We have a great deal of information about the students and their teachers, and their attitudes and opinions toward the ways by which they have learned Spanish. Now, we need to gather the opinions of some parents to complete our study this year.

Your family has been chosen as one of those to be interviewed. During the next few days, a PTA volunteer will call you to make an appointment at your convenience. She will come to your home and will ask you a few questions about the Spanish program and its related activities. What you say will become a very essential part of our study, and your personal views will be treated as confidential information. The interviewer will have a card which will identify her.

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Thank you for arranging to see the PTA interviewer when she calls.

Sincerely,

Fanny Goodman

Mrs. Manuel Goodman
President, Denver County Council
of Parent-Teacher Associations

Kenneth E. Oberholtzer

Kenneth E. Oberholtzer
Superintendent of Schools

APPENDIX L

Example of an Emergency Communication

DENVER PUBLIC SCHOOLS

INTERDEPARTMENTAL COMMUNICATION

To Elementary School Principals

From James T. Johnson, Jr.

Date September 12, 1962

Subject Emergency Action Request

The song, "If I Ever Needed You, I Need You Now" might well be the theme of this request.

As you undoubtedly know by now, today's sixth grade Spanish test was missed, at least in part, by most classes due to a monumental error by one of the station crew in starting the videotaped telecast ten minutes before the scheduled beginning time.

This test is extremely important since it provides the "bench mark" for all the sixth grade research procedures. Therefore, a different form of the test must be given next Monday, September 17, from 12:45 - 1:00. We recognize that this presents many problems for you since Monday is the regular fifth grade day. However, because of other scheduled activities, there is no alternative.

This brings us to the "Emergency Action" phase. Will you please arrange for your sixth grade classes to view this test on Monday. One way to handle it would be to have two "Tuesdays" next week -- thus, the fifth graders would have basics and the sixth graders Spanish on Monday. Another way would be for the fifth and sixth graders to change rooms -- the basics teacher could proctor the Spanish test, since all directions are given on the TV, and the fifth grade Spanish teacher could teach his Spanish class without the TV lesson (probably using the unused activities of the lesson plan suggested for September 10). Another plan might involve holding the fifth graders outside during that fifteen minute period. Probably your Spanish teachers can suggest other possibilities for your situation. In any case, we must depend on you to make sure that your sixth grade classes take the test Monday, and that the materials get to the right teacher if someone other than the regular Spanish teacher is involved.

This is an unfortunate situation for all of us, and one over which we had no control. However, if you take immediate action in setting up your plans, and we have the new tests delivered to you no later than 11:00 a.m. Monday, another challenge will be met through the cooperative effort that has been so evident throughout the study.

Thank you for your assistance.